

EXHIBIT A

Antitrust Law: An Analysis of Antitrust Principles and Their Application - Areeda and Hovenkamp, ¶1745. The Primary Tests and Precedent

Antitrust Law: An Analysis of Antitrust Principles and Their Application - Areeda and Hovenkamp
 Phillip E. Areeda (late) & Herbert Hovenkamp, Antitrust Law: An Analysis of Antitrust Principles and Their Application ¶1745. (Fourth and Fifth Editions, 2023 Cum. Supp. 2016-2022)
 Fourth and Fifth Editions, 2023 Cum. Supp.

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Last Updated: 8/2023

In *Viamedia* the Seventh Circuit held that looking at the pre-contract stage, it was clear that the defendant cable provider's interconnect services and its advertising representation services were separate products. ^[S1] Prior to implementation of its tying requirement, the plaintiff had sold its ad rep services but later required customers to purchase its own services. A dissenter objected that this was simply a refusal to deal claim disguised as a tying claim and that the record did not show true conditioning because a monopolist has a right to decide with whom it will do business.

In *Epic Games* the district court concluded that the two sides of a two-sided market could not be separate products under tying law:

[The] IAP [in-app purchases system] is but one component of the full suite of services offered by iOS and the App Store. Moreover ..., the App Store is a two-sided transaction platform. See *Amex*, 138 S. Ct. at 2286 n.8 (noting that “a two-sided platform” is one that “offers different products or services to two different groups who both depend on the platform to intermediate between them”). By definition, the platform has two sides: the developer on one side providing gaming apps and the consumer on the other, purchasing the apps. This is a single platform which cannot be broken into pieces to create artificially two products. ^[S2]

See also *Siva v. American Bd. of Radiology*, 38 F.4th 549 (7th Cir. 2022) (initial certification of radiologists and subsequent maintenance (continuing education) of status were not separate products for purposes of tying law; fact that one radiologist had previously and unsuccessfully offered continuing education separately was not sufficient).

1745a. Introduction and summary.—The Supreme Court’s most extensive discussion of the single-product issue appears in *Jefferson Parish*. ^[1] That decision’s analysis, which was reaffirmed in *Kodak*, ^[2] rested on two important premises. *First*, the ultimate policy question is whether it would be *efficient* (not just possible) to offer the products separately (see ¶b). *Second*, the single-product inquiry does not judge this policy question directly (by assessing cost efficiencies) but *indirectly* with more easily obtained evidence regarding actual market practices and market structure (¶c). We then consider in ¶d certain language in these opinions that might be misinterpreted to mean that the present existence of an independent market for the tied item is either necessary or sufficient to show separate products.

Both *Jefferson Parish* and *Kodak* involved analogues to competitive markets involving the same two items bundled by the defendant. In ¶e we address language in *Fortner I* ^[3] that supports our ¶1744f analysis regarding competitive market analogues that involve only one of the items bundled by the defendant.

The rest of this Paragraph addresses lower court precedent. In ¶¶, we collect and analyze opinions that utilize similar factors to adjudicate whether two items constitute a single product. Then ¶g concludes by reviewing various additional illustrations drawn from lower court cases.

1745b. Efficiency of unbundling given demand..—The *Jefferson Parish* plaintiff alleged that hospital services were the tying product and anesthesiological services the tied product. In rejecting the one-product claim, the Court reasoned that

the answer to the question whether one or two products are involved turns not on the functional relation between them, but rather on the character of the demand for the two items [4] [A] tying arrangement cannot exist unless two separate product markets have been linked.

The requirement that two distinguishable product markets be involved follows from the underlying rationale of the rule against tying. The definitional question depends on whether the arrangement may have the type of competitive consequences addressed by the rule. The answer to the question whether [defendants] have utilized a tying arrangement must be based on whether there is a possibility that the economic effect of the arrangement is that condemned by the rule against tying—that [defendants] have foreclosed competition on the merits in a product market distinct from the market for the tying item. Thus, in this case no tying arrangement can exist unless there is a sufficient demand for the purchase of anesthesiological services separate from hospital services to identify a distinct product market in which it is efficient to offer anesthesiological services separately from hospital services. [5]

This single-product analysis was reaffirmed by *Kodak*, which involved tying parts and tied service for Kodak photocopiers: "For service and parts to be considered two distinct products, there must be sufficient consumer demand so that it is efficient for a firm to provide service separately from parts. " [6] The Court thus asked whether offering the items separately would, *given* consumer demand, be *efficient*.

1745c. Indirectly inferred from market practices..—Also in line with this primary test, neither *Jefferson Parish* nor *Kodak* inquired directly into the actual costs or quality of offering the items bundled as opposed to unbundled. Nor did the Court require market surveys regarding consumer demand at the various prices implied by those costs or quality. Instead, the Court inferred the efficiency of bundling and nature of consumer demand indirectly from such more readily observed facts as actual consumer requests and market practices.

Thus, *Jefferson Parish* relied on three easily observed facts as implying separate products. *First*, as in the threshold showing of ¶1743a, the court looked for and found evidence that buyers actually wanted the items separated. *Second*, the Court looked at actual market practices at other hospitals and in other markets where patients and their physicians generally selected anesthesiologists separately from the hospital. [7] *Third*, the Court observed separate billing for hospital and anesthesiological services and thought it pointed toward separate products. [8] The Court also quoted approvingly a long passage from *Jerrold* finding separate products after an initial pioneering period because no entering rival sold competing items exclusively bundled and because the defendant varied and separately priced the items bundled. [9]

Nor did the *Kodak* Court probe actual cost and demand data on the efficiency of unbundling. Instead, the Court relied on the readily observed facts that the defendant itself had previously sold service and parts separately and continued to do so. [10] Moreover, the national development of a separate service industry evidenced "the efficiency of a separate market for service." [11] As in ¶1744, the Court relied on unbundling in other markets, in past periods in the defendant's market, and for non-locked-in customers of the defendant for whom competition exists.

The *Illinois Tool Works* decision mentioned the separate-products requirement for tying, most specifically in its discussion of Justice O'Connor's *Jefferson Parish* concurrence. ^[12] Perhaps more significantly, the Court read §271(d) of the Patent Act as applying to antitrust claims as well as patent misuse claims. That statute applies to two different tying-like situations. One is conditioning the sale of a patented good on "the acquisition of a license to rights in another patent," and the other is conditioning such a purchase of a patented product on the "purchase of a separate product." ^[13] Because the tied ink was not patented, the Court clearly assumed that the ink was a "separate product" from the patented, tying print head, although it offered no separate analysis of that fact.

1745d. Possibly conflicting dicta.—A few dicta in these Supreme Court opinions might be interpreted to conflict with this basic market practices test. We reject such interpretations.

1745d1. Current existence of independent markets necessary for separate-products conclusion?—The *Jefferson Parish* Court stated that "a tying arrangement cannot exist unless two separate-product markets have been linked " and required "that two distinguishable product markets be involved. " ^[14] Read literally, such a requirement could perversely immunize the worst-case scenario of a successful tie by which a monopolist successfully leverages a monopoly in the tying product into a monopoly in the tied product. For example, proof that all cans are sold with can-filling machines, so that no independent market exists for them, should not preclude inquiry into a tie between cans and can-filling machines by a monopolist in both. Rather, such proof simply reflects a 100 percent successful tie. ^[15] Indeed, as now-Justice Breyer recognized, this is the paradigmatic case illustrating the anticompetitive evils that motivate anti-tying doctrine. ^[16]

Such a perverse result was clearly unintended. At most, the quoted language requires evidence that, at some point in the present or past, the products were offered separately. More likely, the Court simply did not reach a judgment on the question, but rather articulated what normally is indeed the key question: whether the items are marketed separately in comparable markets. When actual markets provide no market test, the Court seems to ask whether independent markets could exist. This requires some assessment of what consumer demand would be at the costs and quality that would prevail if the items were separately provided. The lower courts appear to agree with this interpretation. For example, *Microsoft* gave weight to the district court's fact finding that

"... many consumers, if given the option, would choose their [Internet] browser separately from the OS [operating system] " and "although all major OS vendors bundled browsers with their OSs, these companies either sold versions without a browser, or allowed OEMs or end-users either not to install the bundled browser or in any event to 'uninstall' it. " ^[17]

1745d2. Independent tied-product market sufficient for separate-products conclusion?—Other Supreme Court language suggests that a separate market for the tied product itself demonstrates separate products. *Jefferson Parish* said that "no tying arrangement can exist unless there is sufficient demand for the purchase of [the tied item] separate from the [tying item] to identify a distinct product market in which it is efficient to offer [the tied item] separately from the [tying item]. " ^[18] And *Kodak* stated, "For [the tied and tying items] to be considered two distinct products, there must be sufficient consumer demand so that it is efficient for a firm to provide [the tied item] separately from the [tying item]." ^[19] While these statements focus on the efficiency of separate provision, they might also be read to suggest that the existence of an independent market for the tied product suffices to show separate products. ^[20]

However, under the competitive market practices test, a distinct market for the tied item does not imply separate products absent widespread sales of the tying item in unbundled form. For example, an independent market for carburetors does not make a car with carburetor installed two products because no significant independent market exists for cars stripped of their carburetors. ^[21] Nor does an independent market for television tubes prove that a television and its installed tube are separate products because we have no significant independent

market for televisions lacking tubes. Two items constitute one product under the market practices test unless *each* could efficiently be sold without the other. ^[22] This distinction is critical because so many durable goods markets consist of a primary market in which an entire machine (automobile, television, photocopier, computer, etc.) is bundled with all of its parts into an initial package, and an "aftermarket" in which replacement parts are sold separately.

In any event, the Court prefaced the above-quoted statements with language suggesting that proof of an independent tied market was not always sufficient to prove separate products. The *Jefferson Parish* quotation began with "no tying arrangement can exist unless ..." ^[23] and the *Kodak* quotation with "[f]or [the tied and tying items] to be considered two distinct products" ^[24] Thus, even their literal language indicates that an independent tied market, while necessary in those cases, does not suffice to prove separate products.

1745e. Analogues to competitive bundles involving only one of the items bundled by the defendant..

—*Fortner I* concluded that two separate products were involved in the sale of prefabricated houses coupled with a loan sufficient not only to buy the houses but also to pay for the land and the cost of erecting the houses on it.

^[25] The Court distinguished this from "the usual sale on credit" where

the seller ... simply makes an agreement determining when and how much he will be paid for his product. In such a sale the credit may constitute such an inseparable part of the purchase price for the item that the entire transaction could be considered to involve only a single product. ^[26]

In the case at hand, however, the credit involved "money over and above that needed to pay the seller for the physical products purchased." ^[27]

The distinction makes little sense under alternative single-product theories based on metaphysics or direct assessment of underlying efficiencies. ^[28] Selling products with credit equal to the purchase price may be no more efficient (or metaphysically unique) than a sale with greater credit. However, the former is highly prevalent across many competitive markets, whereas the latter generally is not. ^[29] In special cases where credit greater than the purchase price is prevalent, a single product should be found. Thus, if franchisors routinely lend franchisees enough to not only buy supplies from the franchisor but also to cover various other necessary expenses, then the franchise and credit should be deemed a single product. ^[30]

Justice Fortas's dissent goes even further and denies that credit is a distinct product when "ancillary" or "incidental" to selling a product. ^[31] Furthermore, this same conclusion applied to delivery, installation, service, and so forth:

Almost all modern selling involves providing some ancillary services in connection with making the sale—delivery, installation, supplying fixtures, servicing, training of the customer's personnel in use of the material sold, furnishing display materials and sales aids, extension of credit. Customarily—indeed almost invariably—the seller offers these ancillary services only in connection with the sale of his own products, and they are often offered without cost or at bargain rates. It is possible that in some situations, such arrangements could be used to restrain competition or might have that effect, but to condemn them out-of-hand under the "tying" rubric is, I suggest, to use the antitrust laws themselves as an instrument in restraint of competition. ^[32]

This conclusion parallels our own regarding services like delivery and installation, ^[33] but the "ancillary" concept lacks meaning. ^[34] If the concept is used, an item should be deemed "ancillary" or "incidental" to a product when it is commonly bundled with many other products in competitive markets. ^[35]

1745f. Lower court precedent supporting a market practices test.—Even when courts do not explicitly refer to competitive market practices, their single-product conclusions are generally consistent with such a test. *First*, courts intuitively find one product when the bundle reflects dominant competitive market practices. ^[36] *Second*, many decisions are consistent with this approach for such commonly bundled and unbundled items as cars and radios or air conditioners. ^[37] *Third*, cases generally find a single product for bundles involving one item commonly bundled across many product markets, as we would, ^[38] and deny separate-product status to the financing of a product purchase price or dealer transaction or credit processing services, ^[39] product warranties in most cases, ^[40] product delivery, ^[41] and the maintenance of leased equipment. ^[42] Although not fully explained, such cases are likely guided by implicit understandings tantamount to judicial notice of market practices.

Frequently, courts are explicit. Starting with *Jerrold*, ^[43] many lower courts have articulated a market practices test. Like the Supreme Court, they have mainly focused on (1) whether the defendant or its competitors offered, or had offered, the bundled items separately; and (2) whether the defendant varied or separately billed a bundle's components. ^[44]

Unlike the Supreme Court, the lower courts have not always made clear that market practices are just an indirect means of drawing inferences about the efficiency of unbundling the items. But these courts have been explicit about their willingness to look at whether or not the items were unbundled in markets other than those in which the defendant operated. ^[45] At least one lower court has correctly seen that finding separate products requires proof that the tying—as well as tied—item has been offered separately in competitive markets. ^[46] The lower courts are also sometimes clearer about distinguishing competitive from noncompetitive market practices. ^[47] Thus, the *Anderson* court declined to infer a single product from widespread bundling of cars with their delivery to dealers in an oligopolistic market. ^[48]

One interesting case involved the Associated Press's practice of insisting that member newspapers in metropolitan cities take three news wire services: general news, financial news, and local news. ^[49] Associated Press (AP) argued that it provided only one product—namely, news—and that the subclassifications were overlapping and often spilled over onto each other's wires. The court, however, concluded that at least the local news wire was a separate product. The court noted that the defendant sold some of the news wires separately to other customers and that the defendant's competitor, UPI, allowed its customers to buy different news services separately. ^[50] Despite significant market concentration, the market practice of unbundled sales implied sufficient demand in larger cities to make separate offerings efficient, thus indicating separate products. ^[51]

The dissent stressed that there was no natural way of dividing up the different news the defendant disseminated. ^[52] However, the fact that two items are collected or created together does not mean it is efficient and desirable to sell them bundled. After all, while oil drillers may collect natural gas at the same time, no one doubts that, once unmingled, further sale of oil and gas involves separate products. ^[53] Nevertheless, the analogy is imperfect because news wire stories, like computer software, can be arbitrarily grouped in practically any way the defendant pleases. For example, one news service might create a single sports service, while another offers separate services for football, baseball, and so on. The important factor in *Associated Press* was that the defendant had *already* grouped stories into separately issued wire services, and then refused to sell some services unless others were purchased as well. ^[54] That case must be distinguished from one in which the purchaser wished to have some subset of stories contained within a single news service. ^[55]

At least one court expressly considered historical market practices in finding a single product. In *Montgomery County* the defendant county realtor association bundled verbal descriptions of homes with their photographs in its computerized multi-list database. ^[56] Before computers, realtor associations everywhere had bundled the words and pictures describing properties in index cards and multi-list books. Later, the words and pictures were separated because early computer technology allowed the transmission of words but not pictures. ^[57] The plaintiff had filled this gap by introducing a technology for delivering digitized photographs to realtors along with software merging the plaintiff's digitized photographs into the written multi-list information provided by the defendant. ^[58] Later when the technology allowed the widespread delivery of digitized photographs, the defendant wished once again to combine the words and pictures describing properties in its standard database. The court denied the plaintiff a preliminary injunction, finding the words and pictures to be a single product: namely, a database of information about properties for sale. ^[59] The court relied partly on a nationwide trend of realtors' bundling together words and pictures in the same database ^[60] and on the historical evidence that words and pictures were bundled in the pre-computer era. ^[61] The court did not, however, expressly consider whether either the historical or contemporaneous markets were sufficiently competitive to indicate one product. ^[62]

1745g. Illustrations from specific markets.—

1745g1. Condominium ties.—Several plaintiffs have claimed that a condominium developer conditioned the sale of its condominiums on the purchase of associated services or amenities like management, gardening, and maintenance contracts, ^[63] parking spaces, ^[64] recreational facilities, ^[65] and swimming pools. ^[66] Some courts assume or find separate products with little analysis, while other courts have asserted the opposite. A few decisions confess confusion. As one court put it:

At one end of the spectrum, we feel certain that the requirement that purchasers of condominiums also buy an undivided interest in certain common areas does not involve two separate products. At the other end of the spectrum, however, it would clearly be improper to require condominium purchasers to patronize, for example, a local shopping center owned by the condominium developers; in this hypothetical situation, two separate products are clearly involved. Somewhere in between these two extremes the line between which products constitute part of the condominium "leisure living " package and which products are separate must be drawn. We are unable to do so at this juncture in the present case, however. ^[67]

Condominiums are necessarily bundles of valuable items. So for that matter is all residential housing. One would not ordinarily say that someone who sells houses with the attached land is "tying " two products together. ^[68] Likewise, no one would say the bundling of a condominium with rights of access to common space involves the tying of separate products. But at what point does the bundling of associated items cease to involve a single product?

These cases can usually be resolved using a competitive market practices test. Condominium developers in competitive markets routinely bundle their condominiums with associated services and amenities like management contracts and swimming pools. They do not bundle condominiums with retail shopping. With respect to amenities, it is true that, while condominiums often have swimming pools, health clubs, garages, or parking spaces, often they do not. Nevertheless, such varying amenities are very common across all types of buildings—condos, co-ops, rental properties, houses, office buildings, hotels, and so forth. This suggests a single product under ¶1744f. ^[69] As for service contracts by condo developers, they are almost uniformly bundled in competitive markets, indicating a single product. ^[70] This is clearest over the period of initial sale, when the developer has the strongest interest in demonstrating management's quality and monthly charge. To protect

buyers against unduly low (but of limited duration) monthly fees to encourage condo sales, moreover, the service contract must be long enough to force realistic maintenance charges. We therefore expect that developers in competitive markets routinely bundle in service contracts of some years. ^[71] Apparently for that reason, some courts have suggested that short-duration bundles are one product while longer ones are two. ^[72] Precise guidelines are impossible. The most one can expect is reliable expert evidence about durations that fall outside a range of conventional practice.

1745g2. Associated lender services.—When banks required borrowers to pay insurance and taxes into no-interest escrow accounts, some courts held mortgage loans and escrow services to be one product, ^[73] while others found a fact question. ^[74] Ironically, the latter cases recounted evidence suggesting one product: "virtually all banks require such an interest free tax escrow arrangement as a condition of extending credit in real estate mortgage cases." ^[75] Such a uniform market practice of bundling loans and escrows indicates a single product if any of the markets were competitive. While competitiveness was disputed in one case with undismissed allegations that this uniform market practice resulted from a marketwide conspiracy, ^[76] a later court rejected a similar conspiracy claim but then erroneously relied upon the earlier one to find a disputed fact question. ^[77]

1745g3. Medical practices.—At least two courts have found hospital and pathology services to be a single product. ^[78] Superficially, this might seem inconsistent with *Jefferson Parish*, which found hospital and anesthesiological services to be separate products. However, *Jefferson Parish* found that unbundling of hospital and anesthesiological services was common, whereas virtually every hospital in the nation bundled hospital and pathology services. ^[79] Indeed, the efficiency of such bundling was conceded in one case, ^[80] and patients and physicians rarely if ever requested pathology services separately from hospital services. ^[81]

By contrast with pathology, one case required a trial to decide whether a hospital's nuclear medicine facilities and the services of a nuclear medicine practitioner were separate products. ^[82] While patients were not billed separately for these services, there was evidence, as in *Jefferson Parish*, that physicians requested, and other hospitals allowed, nuclear medical services to be purchased separately from the facilities. ^[83]

1745g4. Medical insurance bundles.—Traditional insurers simply reimbursed enrollees for their payments to medical providers. In contrast, many modern health plans integrate insurance and medical provision by committing not only to cover medical costs but also to provide the needed medical goods and services themselves. ^[84] This has produced claims that the integrated insurer has tied medical insurance to medical goods and services. In *Klamath* the plaintiff claimed a tie between (1) a health plan's pharmacy benefits and (2) restrictions on which pharmacies could be used. ^[85] Since a contractual restriction is not a product at all, the court not unsurprisingly rejected the tying claim. ^[86] But the court's reasoning extended further:

Insureds, the consumers, certainly did not consider these as two separate products. In deciding whether to buy the pharmacy benefit, they made just one decision, comparing the expected cost of the benefit plus copayments for drug purchases against the expected cost of drugs bought at the independent pharmacies. The risk insureds sought to transfer was the risk of high pharmacy bills. The product these consumers sought was a means by which they could satisfy their drug needs on favorable terms. Their purchase of drugs in the required manner was the consummation of the pharmacy benefit, not an unwanted and unnecessary product tied to the desired product. ^[87]

In *De Modena*, the plaintiff more artfully claimed that a health plan had tied drug insurance to the drugs sold at its facilities. ^[88] But the court summarily rejected the claim, citing *Klamath* for the proposition that "we have already rejected the theory that a drug plan and the drugs provided under that plan are separate commodities" ^[89]

This reasoning implies that *any* bundling of health insurance with the provision of medical goods and services is a single product. For all such insurance, the consumer choosing a plan compares its premium plus expected copayments against the expected cost of buying the covered medical goods and services from independent suppliers, and the purchase of the medical goods and services from the plan is the consummation of the insurance benefit. But this logic is far too sweeping. For *any* tie, a rational buyer compares the expected cost of the bundle to the expected cost of buying the items unbundled elsewhere. And, having contracted for the bundle, receiving the bundle is the consummation of the buyer's contract. Thus, literally applied, the courts' logic suggests that all ties involve single products.

Of course, powerful economic reasons justify bundling medical insurance with the provision of medical goods and services. It reduces the moral hazard (or incentive to overconsume) that otherwise results when the insured patient or the physician can order any medical goods and services they wish without regard for cost because the insurer reimburses all costs. By placing the plan's own representatives in charge of providing medical goods and services, the plan makes sure that excessive and unduly expensive goods and services are not ordered. Such integration may also reduce transaction costs and improve administrative efficiency.

While these arguments may justify a tie of separate products, they do not establish a single product. The insurance and drug supply bundled by the defendants could be unbundled, traditionally were unbundled, and continue to be frequently unbundled today. But the inference from past or current market practices may be inaccurate because the traditional separation of insurance and medical provision largely resulted from legal restrictions. ^[90] With those restrictions increasingly relaxed, the market trend has been toward increasing integration of insurance and medical provision. A competitive unregulated health care market would thus probably not have produced nearly as high levels of unbundling as we saw traditionally or continue to see today.

1745g5. *Products and their advertising.*—*Faulkner* involved a manufacturer accused of tying advertising to the automobiles sold to dealers. The manufacturer had always purchased national advertising for its cars but had allowed dealers to buy local advertising, partly subsidized by the manufacturer. ^[91] The manufacturer then changed its policy and increased wholesale car prices. It then used the extra funds to purchase local advertising itself.

The appellate panel saw cars and advertising as separate products because: (1) dealers perceived advertising to be separate; and (2) sufficient demand clearly existed to support an independent "market" for the tied product because local advertising had previously been purchased separately. ^[92] However, neither buyer perceptions nor an independent tied market (while relevant) suffice to dictate separate products. ^[93] More important was the evidence of market practices. Many car manufacturers advertise directly, financed by product revenues. ^[94] Even if the car market were not sufficiently competitive, the manufacturers of *other* products directly advertise so often that the items should not be considered separate. ^[95]

1745g6. *Cemetery ties.*—Several courts have held that cemetery lots are separate products from grave markers or vaults installed on the lots. ^[96] Courts have also held such lots separate from installation and grave openings/closings. ^[97] Although these conclusions were more asserted than explained, perhaps the courts assumed the tied items had traditionally been provided separately. Indeed, all the cases were apparently brought by some supplier who provided the tied items separately at cemeteries that did not require lot purchasers to buy the tied items from the cemetery. ^[98]

1745g7. *Sale of a business.*—One court held that an isolated sale of a business as a going concern was a sale of a single product and thus not a tie of the business trade name to the equipment. ^[99] The court analogized to the sale of a car with the engine installed; in both cases, the bundle is widespread in competitive markets. This implies a single product notwithstanding separate markets for the allegedly tied car engines or restaurant equipment. ^[100] Generally, and more to the point, "in gross" assignment of trademarks apart from the product or business to which they are attached is disfavored by trademark law, and can occasion claims of consumer

abuse. ^[101] This suggests a strong presumption that a trademark and the output to which it is attached are a single antitrust product. ^[102]

1745h. Software bundles and the *Microsoft* case.—

1745h1. *Microsoft consent decree litigation.*—The first government antitrust action against Microsoft resulted in a consent decree in 1995. ^[103] However, both the district and circuit courts relied on antitrust tying law in order to interpret the decree, which (1) forbade Microsoft from "entering into any operating system license agreement that is 'expressly or impliedly conditioned upon the licensing of any ... other product'"; but also (2) expressly permitted Microsoft to develop "integrated products." ^[104] The dispute arose when newer versions of the Windows 95 operating system were bundled with Microsoft's Internet Explorer Web browser.

The district judge interpreted the quoted language in the consent decree as invoking tying law's test for whether a software bundle constituted an aggregation of separate products. ^[105] Ultimately, that court agreed with the government's argument that the Internet Explorer "possesses both a physical and commercial existence of its own, separate and apart from any Microsoft operating system." However, as Microsoft pointed out, nearly every feature that was incorporated in Windows 95 had once been available separately and would have been a separate product under that definition.

The district court relied on the *Jefferson Parish* test that whether two objects are to be regarded as "separate products " for the law of tying arrangements depends "not on the functional relation between them, but rather on the character of demand for the two items " and "whether the arrangement links two distinct product markets that are "distinguishable in the eyes of buyers. " ^[106] The Windows 95 operating system and the Internet Explorer browser appeared to qualify as separate products under these tests.

Then, in holding that a preliminary injunction was appropriate, the court stated:

The government believes that Microsoft's licensing strategy is motivated by a threat Microsoft apprehends in the foreseeable future to its operating system monopoly. Independent software developers generally write new applications to run on a specific operating system, Windows 95 or its predecessors being currently by far the most common in use. According to the government's prognostication, if more users employ an Internet browser technology as an alternative to using the underlying operating system directly (as the Court is informed it is possible to do), software developers will have an incentive to write their applications to conform to alternative Internet specifications, rather than to Windows requirements. Microsoft's licensing strategy is allegedly designed to overwhelm the developing competition in the browser market (which at the moment Microsoft does not dominate) before it becomes established, thereby perpetuating Microsoft's operating system monopoly. ^[107]

The D.C. Circuit reversed, concluding that later versions of Windows 95 and Internet Explorer (IE) were sufficiently integrated to constitute a single product. ^[108] The court reasoned that in order to constitute a single product,

the combination offered by the manufacturer must be different from what the purchaser could create from the separate products on his own. The second point is that it must also be better in some respect; there should be some technological value to integration. Manufacturers can stick products together in ways that purchasers cannot without the link serving any purpose but an anticompetitive one. The concept of integration should exclude a case where the manufacturer has done nothing more than to metaphorically "bolt " two products together, as would be true if Windows 95 were

artificially rigged to crash if IEXPLORE.EXE [the Internet invocation file in Windows 95] were deleted.
[\[109\]](#)

While computer software technology changes very quickly, it also tends to change in evolutionary rather than revolutionary ways, and the success of future systems often depends on compatibility and integration with existing systems, as well as with systems that, while technically obsolete, are still in widespread use. To that extent, dominance in the current operating system, coupled with strategic bundling of the type of program believed to form the foundation of a future operating system, could lead to domination of the next-generation system as well.

If Windows 95 and IE were shipped on separate disks and were entirely discrete programs, they would probably constitute separate products for the purpose of tying analysis, particularly if others sold operating systems and browsers separately. But this was not the case. Later versions of Windows 95 and all subsequent editions "commingled " IE code into the same computer files. Of course, this in itself would not be sufficient. First, software programs frequently contain numerous discrete computer "files " that can often be installed separately, with some not installed at all. Simply moving one or more of the files from the IE disk to the Windows 95 disk would not turn two products into one. Second, the writers of software code can configure it or divide up the files in many different ways, and it would be easy for them to "integrate " Windows 95 and IE simply by putting some of the software code for IE into one of the Windows 95 installation files, thereby precluding the ordinary user from installing Windows 95 without installing at least part of IE.

But in this case the Circuit Court emphasized that there was something more: not only was certain IE code interspersed with Windows 95 code, but IE performed functions in Windows 95 that were quite apart from invocation of the Internet, for which IE is designed. For example, because of this code someone working in Windows 95 could use HTML files written for the Internet [\[110\]](#) or could use the features of programs that invoked or created Internet addresses.

Of course, notwithstanding these integrations, a software designer could easily place all the IE capability in one set of files and all the Windows 95 non-IE capability in a different set. In that case the end user could, at his or her pleasure, install only Windows 95 files or the Windows 95-plus-IE files, and the two would work together equally well whether "joined " at the factory or united by the end user. This broad manipulability is a rather distinctive feature of software. One could not so readily design an automobile whose pistons could be installed by the end user as easily as by the factory assembler.

But if the question is whether software could be configured so that all "incremental " features formerly sold independently could be installed or not installed by the end user, then virtually all improvements to software would be regarded as separate products. [\[111\]](#) For example, Microsoft's numerous versions of its MS-DOS operating systems, which preceded its Windows systems, lacked a graphical user interface (GUI), which creates the icons and "desktop" layout on Windows systems. MS-DOS also lacked such features as a calculator, sound player, and a host of other accoutrements that came to be included in later Windows packages. But the earlier versions of Windows were built on top of the basic MS-DOS disk operating system. [\[112\]](#) As a result, a software designer could easily produce a package that permitted the owner of a computer running a late version of MS-DOS to add the Windows functionality, although this might require modifying most or even all of the previously installed MS-DOS files. Indeed, the installation program itself could make whatever modifications were necessary in the existing MS-DOS files so that the Windows features would operate. Once installed, a system "put together" in this fashion by a computer builder or end user would work just as well as a system assembled at the Microsoft plant. In that case the original operating system and the subsequent additions would have to be regarded as "separate products," the tying of which was forbidden by the consent decree, rather than as "integration," which was permitted.

In that case, however, nothing would count as "integration. " Of course, there would be situations in which a new system rendered existing software and code entirely obsolete, so that the only way the new system

would operate is if the existing system were entirely deleted or disengaged. But that is not "integration " at all; it is replacement. For example, one would not characterize a modern scientific electronic calculator as the "integration " of extra features onto a slide rule. The calculator simply renders the entire slide rule obsolete.

The D.C. Circuit's conclusion in *Microsoft* was that a "single product " was called for because the later versions of IE

add to the operating system features that cannot be included without also including browsing functionality. Thus, as was the case with Windows 95, the products—the full functionality of the operating system when upgraded by IE 4 and the "browser functionality " of IE 4—do not exist separately. This strikes us as an essential point. If the products have no separate existence, it is incorrect to speak to the purchaser combining them. Purchasers who end up with the Windows 95/IE package may have installed code from more than one disk; they may have taken the browser out of hiding; they may have upgraded their operating system—indeed, Netscape characterizes the installation of IE 4 as "really an OS [operating system] upgrade. " But they have not combined two distinct products.

What, then, counts as the combination that brings together the two functionalities? Since neither fully exists separately, we think the only sensible answer is that the act of combination is the creation of the design that knits the two together. OEMs cannot do this: if Microsoft presented them with an operating system and a stand-alone browser application, rather than with the interpenetrating design of Windows 95 and IE 4, the OEMs could not combine them in the way in which Microsoft has integrated IE 4 into Windows 95. They could not, for example, make the operating system use the browser's HTML reader to provide a richer view of information on the computer's hard drive, J.A. 1665—not without changing the code to create an integrated browser. This reprogramming would be absurdly inefficient. Consequently, it seems clear that there is a reason why the integration must take place at Microsoft's level The factual conclusion is, of course, subject to reexamination on a more complete record. On the facts before us, however, we are inclined to conclude that the Windows 95/IE package is a genuine integration; consequently, §IV(E)(i) [of the consent decree] does not bar Microsoft from offering it as one product. [\[113\]](#)

The important question that this passage does not consider, however, was whether the add-ons could have been designed in such a fashion as to be installed on top of the basic Windows program. Given the infinite malleability of software, Microsoft could at its will design browser functionality into the Windows program from the start, or it could design browser functionality that could be shipped to or downloaded by an OEM or even an operator and then installed, with the installation program making all necessary modifications of the previously installed code.

Tying law's "separate product " requirement was not developed with a product such as computer software in mind. Software improvements can virtually always be configured so as to be susceptible to separate and subsequent installation by the immediate licensee or end user, thus suggesting that virtually all such improvements should be classified as separate products. Loath to accept such an all-inclusive definition of separate products, the D.C. Circuit perhaps went to the other extreme, asking if some code and functionality from one program was incorporated into the other and finding a single product when the answer was yes. In that case separate products would *never* be found as long as code adding functionality was "commingled " as between the original product and the incremental product.

1745h2. "Bundling" versus "integration" in Microsoft consent decree; virtually unlimited malleability..

—The antitrust concern with software ties is to restrain anticompetitive bundling, which presumably harms consumers, from efficient integration, which presumably benefits them. Computer software poses a unique problem, however, because of the infinite variety of ways in which software code can be written. For example, the seller of a basic operating system for computers who also developed a calculator program could combine

the two in a variety of ways. At one extreme the seller might simply include a separate diskette containing the calculator in its licensing package, and refuse to sell the operating system unless the licensee also took the calculator. When the package is assembled in this way, the result is a classical tying arrangement. But the software manufacturer could also quite readily incorporate the software code for the calculator into one or more of the files already contained in the basic operating system, making suitable modifications to other files, including the installation files, as well. In this latter case, installing the basic operating system would "automatically" install the calculator as well, and only a skilled programmer could analyze the code and rewrite it in such a way as to remove the calculator from the system. Further, in this case extraction of the calculator would be so difficult that the software seller would not need a contractual commitment from the licensee prohibiting it from extracting the calculator. And even if a contractual commitment were necessary, it need take the form of nothing more than an obligation not to make unauthorized modifications in the software code.

In sum, software can readily be configured by the manufacturer so that subsequent commingling is either very easy or very difficult, particularly for end users. When one is speaking of computer software, the "separate products" test is not a particularly useful device for screening out competitively harmless possibilities. It fails to perform the function that was intended for it.

Of course, if such bundling were treated under the rule of reason, as the D.C. Circuit subsequently did in its second *Microsoft* decision, ^[114] then the "separate products" test would have either no role or a greatly reduced role to play. The question would be whether the bundling unnecessarily restrains trade or expands or entrenches a monopoly. ^[115]

1745h3. *Partial or nascent substitutes.*—The possibility of anticompetitive consequences, thus justifying a separate-products finding, increases when the products are not merely complements, but also partial or nascent substitutes. ^[116] Looking at *Microsoft*, if a Web browser is not merely an "application" but an alternative operating system or the means by which alternative operating systems can become more fully competitive with the dominant system, then tying may cut off a nascent technology before it has a chance to mature. ^[117]

1745h4. *Mandatory unbundling of software presents unique pricing problems.*—Software differs from most products in that its incremental cost is very low, including only a few cents for the diskette or other medium on which it is contained, a small amount for packaging, and, of course, distribution costs. Even these costs are significantly diminished if software is distributed via downloads from the Internet. For example, the manufacturer of a software operating system might offer its buyers subsequent enhancements or improvements that can be downloaded from a certain Web site at no additional cost, or perhaps at only a nominal fee. These downloads make continual modifications to the system already installed on the user's hard drive.

Antitrust law regulates the pricing of bundled goods to the extent that it forbids a defendant from offering an excessive discount for taking a bundled package. Generally speaking, where other criteria for illegality are met, the price discount offered to those who take the package may not exceed the cost savings bundling incurs. ^[118] However, nothing in tying law regulates the distribution of price as between the tying and tied products, and this poses a problem when the incremental cost of the tying product is extremely low. For example, suppose that tying law forbids the seller of a computer operating system from imposing mandatory bundling of its browser. This is tantamount to an obligation to sell the operating system in both the "bundled" and "unbundled" versions, or to price the two items separately. Suppose the bundled price is \$100. If constrained to sell the unbundled version and the browser as separate software products, the seller could not charge more than \$100 for the two separately, plus the cost of any additional packaging, distribution, and other costs relating to the separate sales. For example, if packaging of software costs a uniform \$10 per package, the sum of the prices for the operating system and the browser in separate packages could not exceed \$110; otherwise the defendant would be giving an unlawful discount conditioned on bundling.

However, nothing in the law of tying addresses the *distribution* between the price of the tying product and the tied product. If constrained to offer the operating system both without and with the browser, the defendant could respond by charging \$100 for the enhanced version, \$99 for the unenhanced version, and \$1 plus incremental

packaging and distribution cost for the browser. Very likely at this \$1 price no rival making only a browser could recoup its development costs. The practical effect would be the same as mandatory bundling. In sum, a mandatory unbundling order may require unacceptable judicial administration of software prices.

1745h5. *Separate products in D.C. Circuit's second round (2001) decision.*—The second round of antitrust litigation against Microsoft resulted in a detailed set of fact findings and legal conclusions finding some of Microsoft's bundling practices unlawful under §2 of the Sherman Act and some to be unlawful tying under §1. The D.C. Circuit affirmed many, but not all, of the §2 conclusions. It vacated and remanded the finding of unlawful tying under §1. However, the court did not decide whether Microsoft's Windows operating system (OS) and its Internet Explorer browser were a single product for antitrust tying purposes. ^[119] On the demand side, it found that "many consumers, if given the option, would choose their browser separately from the OS." On the supply side, the major OS producers all sold their operating systems bundled with a browser, but they also sold versions that did not include a browser or else they permitted computer manufacturers (OEMs) to bundle a browser into their computer packages. ^[120] In addition, however, Microsoft was the only OS manufacturer who denied OEMs permission to remove the bundled browser in favor of a different browser or no browser at all.

At the same time, the court saw procompetitive potential in such bundling, for it enabled Microsoft to offer "shared " library files for both programs. This in turn enabled software developers to write programs that would invoke both systems. ^[121] From this fact the court concluded that the *Jefferson Parish* test focusing on historical market practices without taking efficiency into account was inapplicable to software bundles in which the tying product was a computer operating system:

In fact there is merit to Microsoft's broader argument that *Jefferson Parish* 's consumer demand test would "chill innovation to the detriment of consumers by preventing firms from integrating into their products new functionality previously provided by standalone products—and hence, by definition, subject to separate consumer demand. " The per se rule's direct consumer demand and indirect industry custom inquiries are, as a general matter, backward-looking and therefore systematically poor proxies for overall efficiency in the presence of new and innovative integration. ^[122]

The court then held that the separate-products test, which was developed with the per se rule in mind, was the wrong one for evaluating such bundles. It remanded for further consideration of the tying claim under the rule of reason.

While we are sympathetic with the court's conclusion that the tying arrangement at issue should be analyzed under the rule of reason, its critique of the *Jefferson Parish* separate-products test seems unjustified. As noted previously, the market practices test was designed only as a threshold query to consider whether the challenged tie had any anticompetitive potential. ^[123] Efficiencies were not to be taken into account in applying the test, but can and are frequently asserted later in determining legality. ^[124]

But under the existing per se rule finding, a single product halts the tying inquiry entirely, and the court conceded the possibility that the tie was being used anticompetitively. ^[125] In that case the better course was the one that the court adopted but whose details it did not develop: a rule of reason inquiry that measures anticompetitive effects directly and for which a "separate products" inquiry is either irrelevant or else not dispositive in either direction. ^[126]

Footnotes

^{S1} *Viamedia, Inc. v. Comcast Corp.*, 951 F.3d 429, 468 (7th Cir. 2020), *cert. denied*, 141 S. Ct. 2877 (2021).
See also *Epic Games, Inc. v. Apple, Inc.*, 493 F. Supp. 3d 817 (N.D. Cal. 2020) (denying plaintiff a preliminary

injunction where plaintiff was unlikely to succeed on its claim that tying of the defendant's digital payment processing system to its software distribution system involved separate products:

Here, the IAP system appears to be integrated with the App Store and, historically, to have never been a separate product. If so, the construct of the IAP appears to reinforce the notion that the App Store is a digital marketplace where developers on the App Store are able to structure their business models however they choose. Many of these developers, like Epic Games, structure these models so that the game or app is free, presumably to entice customers to download the game or app initially, and only monetize the subsequent IAPs. The IAP system does not appear to be a payment processor in the same way that Visa, Mastercard, or PayPal is a payment processor; it is more akin to a link back to the App Store whereby the transaction must occur within the digital confines of the App Store. The IAP system appears to have been created, in part, to capture the value of a developer being on the digital shelf of the App Store which is owed to Apple—either on the initial download, or in subsequent IAPs.

493 F. Supp. 3d at 842.

After trial, the district court found no antitrust violations. See *Epic Games, Inc. v. Apple, Inc.*, 559 F. Supp. 3d 898 (N.D. Cal. 2021), *appeal filed*, No. 21-16695 (9th Cir. Oct. 14, 2021).

^{S2} *Epic Games, Inc. v. Apple, Inc.*, 559 F. Supp. 3d 898 (N.D. Cal. 2021), *appeal filed*, No. 21-16695 (9th Cir. Oct. 14, 2021).

¹ *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 18–25 (1984).

² *Eastman Kodak Co. v. Image Technical Servs.*, 504 U.S. 451, 462–63 (1992).

³ *Fortner Enters. v. United States Steel Corp. (Fortner I)*, 394 U.S. 495 (1969).

⁴ For our parsing of this sentence, see ¶1744h.

⁵ *Jefferson Parish*, 466 U.S. at 19–22.

⁶ *Kodak*, 504 U.S. at 462.

⁷ *Jefferson Parish*, 466 U.S. at 22–23 & n.36 (nationally only 27 percent of anesthesiologists had a financial relationship with a hospital); *id.* at 24 n.39 ("[O]ther hospitals often permit anesthesiological services to be purchased separately. "). Although 27 percent bundling and 73 percent unbundling shows that both practices are common, that nevertheless indicates separate products. See ¶1744e. Nor does it matter whether the other markets that manifest common unbundling were noncompetitive. See ¶1744g.

⁸ *Jefferson Parish*, 466 U.S. at 22, 24 n.39. See ¶1751f.

⁹ *Jefferson Parish*, 466 U.S. at 24 n.39 (quoting *United States v. Jerrold Elecs. Corp.*, 187 F. Supp. 545, 559 (E.D. Pa. 1960), *aff'd per curiam*, 365 U.S. 567 (1961)).

¹⁰ *Kodak*, 504 U.S. at 462.

¹¹ *Ibid.* The Court also suggested that such commonly bundled and unbundled items as cameras and film or computers and software might well be separate products. See *id.* at 463; ¶1744e.

¹² See *Illinois Tool Works, Inc. v. Independent Ink, Inc.*, 547 U.S. 28, 37 (2006).

¹³ *ITW*, 547 U.S. at 41, quoting 35 U.S.C. §271(d)(5).

¹⁴ *Jefferson Parish*, 466 U.S. at 21.

¹⁵ Cf. *Kelly v. General Motors Corp.*, 425 F. Supp. 13 (E.D. Pa. 1976) (that plaintiff could not presently sell tied product because of the tying arrangement could not be grounds for denying him standing "for, if it did, successful monopolists could operate with impunity").

- 16 *Grappone v. Subaru of New England*, 858 F.2d 792, 795 (1st Cir. 1988); see also *United States v. American Can Co.*, 87 F. Supp. 18 (N.D. Cal. 1949) (defendant and major rival selling 88 percent of can-closing machinery sold it only with cans); ¶1700d.
- 17 *United States v. Microsoft Corp.*, 253 F.3d 34, 88 (D.C. Cir.), cert. denied, 534 U.S. 952 (2001) (citing ¶1744 in previous edition; to the extent it is relevant, H.H. was consulted by the federal and some state plaintiffs). See also *Nobody in Particular Presents, Inc. v. Clear Channel Commcn., Inc.*, 311 F. Supp. 2d 1048, 1093–94 (D. Colo. 2004) (separate products depends on nature of demand for the two; here, for purposes of summary judgment motion, the demand for radio play time and promotional support (tying product) could be separate from the demand for concert promotional services (tied product)); *Allen-Myland v. IBM*, 693 F. Supp. 262, 289–91 (E.D. Pa. 1988) (assessing detailed evidence about what consumer demand would be at the higher cost of separate provision to show that parts and labor for computer upgrades were a single product), vacated, 33 F.3d 194, 211–16 (3d Cir. 1994) (contrary assessment of evidence on same issue); *Klo-Zik Co. v. General Motors Corp.*, 677 F. Supp. 499, 504 (E.D. Tex. 1987) (plaintiff may present evidence "that it would be efficient for truck engine warranties to be provided separate from the engines themselves"; single product because such evidence lacking). Such proof was, however, apparently unnecessary in *Allen-Myland* because the court already had before it evidence that all rival computer manufacturers (including the plaintiff) also bundled parts and labor in their computer upgrades. 693 F. Supp. at 267 n.7. And the same was likely true in *Klo-Zik*.
- See also *Abraham v. Intermountain Health Care, Inc.*, 394 F. Supp. 2d 1312, 1319 (D. Utah 2005), *aff'd*, 461 F.3d 1249 (10th Cir. 2006) (requirement of operators of managed care plan that subscribers use plan's own providers for eye care services was not a tie of separate product; state law recognized such plans as organizations that contracted in advance for providers and then sold the package to subscribers:

[A] private limited health care plan's "product" is not merely the "administration" of payment for services rendered—a product indistinguishable from more traditional health insurance indemnity policies; the product is enrollee access to the plan's limited network of relationships, its portfolio of advantageous "arrangements" for health care services through its existing contractual relationships with specific health care providers. A plan subscriber (usually an employer) purchases enrollee access to the plan's "arranged for" services, not merely the plan's "administration" of payment for health care costs, however they may be incurred. In the context of private limited health care plans in Utah, access to "arranged for" health care services is one product.

Id. at 1319.).

- 18 *Jefferson Parish*, 466 U.S. at 21–22.
- 19 *Kodak*, 504 U.S. at 462.
- 20 For lower court opinions that might also be so read, see *Faulkner Advertising Associates, Inc. v. Nissan Motor Corp.*, 905 F.2d 769, 774 (4th Cir. 1990), *aff'd by an equally divided en banc court*, 945 F.2d 694 (4th Cir. 1991); *Klozik*, 677 F. Supp. at 504. The court in *Data General Corp. Antitrust Litigation*, 490 F. Supp. 1089, 1108 (N.D. Cal. 1980), without citing any evidence that competitive markets ever sold the processing unit separately from a memory board, concluded that a central processing unit and memory board were separate products because the memory board was often sold separately from the processing unit. However, the court may have been influenced by evidence that some of the defendant's customers removed the installed memory board entirely in order to install that of a rival, *id.* at 1108–10, suggesting that customers were, in effect, buying processing units and memory boards separately.
- 21 See ¶1744b; *Siegel v. Chicken Delight*, 448 F.2d 43, 48 & n.4 (9th Cir. 1971) (dicta: car with its tires is a single product), cert. denied, 405 U.S. 955 (1972); *Beefy Trail v. Beefy King Int'l*, 348 F. Supp. 799, 806 (M.D. Fla. 1972) (same for car and its engine).
- 22 See ¶1744.

- 23 *Jefferson Parish* , 466 U.S. at 21.
- 24 *Kodak* , 504 U.S. at 462.
- 25 *Fortner I* , 394 U.S. 495.
- 26 *Id.* at 507. See also *United States Steel Corp. v. Fortner Enters. (Fortner II)* , 429 U.S. 610, 622–23 (1977) (Burger, C.J., joined by Rehnquist, J., concurring) (that two products were involved did "not implicate ordinary credit sales of only a single product " and "cast no doubt on the legality of credit financing by manufacturers or distributors ").
- 27 *Fortner I* , 394 U.S. at 507.
- 28 See ¶1741a –b.
- 29 See *Fortner I* , 394 U.S. at 515 (White, J., joined by Harlan, J., dissenting) ("Provision of credit financing by the seller of a commodity to its buyer is a very common event in the American economy. "). For lower courts concluding that the financing necessary to meet a product purchase price is not a separate product, see ¶f.
- 30 *Fortner I* , 394 U.S. at 524 (Fortas, J., joined by Stewart, J., dissenting) (such franchisor financing is "common in our economy ").
- 31 *Id.* at 521–22 (Fortas, J., joined by Stewart, J., dissenting).
- 32 *Id.* at 525 (Fortas, J., joined by Stewart, J., dissenting).
- 33 See ¶1744f.
- 34 See ¶1751c.
- 35 See ¶1744f.
- 36 In addition to the cases collected in ¶¶1741a and 1744b –d, see *SMS Systems Maintenance Service v. Digital Equipment Corp.* , 188 F.3d 11 (1st Cir. 1999) (computer and three-year warranty were separate products where ordinary market practices were to sell computer and warranties separately; "[t]he record is pellucid that, while some other computer manufacturers bundle warranties with their machines, the practice, especially with regard to mid-range computers, is anything but universal. Vendors of mid-range computers offer a variety of ancillary packages with their products, including service contracts, warranties of differing lengths, or nothing at all. "); *Domel v. Aetna Life & Casualty* , 99 F.3d 1145, 1996-2 Trade Cas. ¶71,632 (9th Cir. Oct. 15, 1996) (unpublished) (health insurance policy and requirement that insureds purchase drugs from designated pharmacies not separate products; consumers do not see them as such), following *De Modena v. Kaiser Foundation Health Plan* , 743 F.2d 1388, 1396 (9th Cir. 1984), *cert. denied* , 469 U.S. 1229 (1985); *Klamath-Lake Pharmaceutical Ass'n v. Klamath Medical Service Bureau* , 701 F.2d 1276, 1288–90 (9th Cir.), *cert. denied* , 464 U.S. 822 (1983); *Multistate Legal Studies v. Harcourt Brace Jovanovich* , 63 F.3d 1540 (10th Cir. 1995), *cert. denied* , 516 U.S. 1044 (1996) (defendant accused of tying multistate bar exam (MBE) course to its "full service " course; court finds factual dispute "whether there is enough consumer demand in Colorado for full-service courses without supplemental MBE workshops to make it efficient to sell the two separately. " *Id.* at 1548. If so, the two are separate products.); *United Farmer Agents Ass'n v. Farmers Insurance Exchange* , 892 F. Supp. 890 (W.D. Tex. 1995), *aff'd* , 89 F.3d 233 (5th Cir. 1996), *cert. denied* , 519 U.S. 1116 (1997) (access to electronic information in defendant's mainframe was not a separate product from the computer itself; the electronic access was not separately sold to anyone); *Vermont Mobile Home Owners Ass'n v. LaPierre* , 94 F. Supp. 2d 519 (D. Vt. 2000) (finding fact issue whether rented lot and affixed mobile home were separate products; a later decision dismissed complaint for lack of power and no proof of an overcharge: 131 F. Supp. 2d 553 (D. Vt. 2001)); *Chawla v. Shell Oil Co.* , 75 F. Supp. 2d 626 (S.D. Tex. 1999) (for purposes of motion to dismiss, Shell's gasoline and its "island card readers, " which permitted patrons to pay for gasoline at the pump, were separate products); *Carsten v. United Parcel Service* , 1996 WL 335421, 1996-1 Trade Cas. ¶71,413 (E.D. Cal. Mar. 26, 1996) (UPS offers discounts and rebates to delivery firms with whom it has a franchise arrangement but not to independents; plaintiff alleges that UPS "ties " the discount to the franchise; court correctly notes that the discount is not a separate product or service; "discounts " cannot be marketed separately from the product or service to which they are attached); *Bell Atlantic Business*

Systems Service v. Hitachi Data Systems, 1995 WL 798935, 1995-2 Trade Cas. ¶71,258 (N.D. Cal. Mar. 10, 1995) (copyrighted service manuals and software could be a separate product from the service itself where at least some customers wished to purchase the manuals apart from the service); *National Ass'n of Freelance Photographers v. Associated Press*, 1997 WL 759456 (S.D.N.Y. Dec. 10, 1997) (unreported) (motion to dismiss; requirement that freelance photographers agree to release copyright before AP will purchase their photographs does not involve separate products); *Beal Corp. Liquidating Trust v. Valleylab*, 927 F. Supp. 1350 (D. Colo. 1996) (patent and licensing agreement not separate products).

But see Digital Equip. v. Uniq Digital Techs., 73 F.3d 756, 761 (7th Cir. 1996) (suggesting that computer and software operating system (OS) are single product because OS is essential to the system, analogizing it to the GM car and electrical system; however, in the computer case there are separate markets for the computer and the OS but probably not for the unwired car and the wiring system).

Cf. De Jesus v. Sears, 87 F.3d 65 (2d Cir.), *cert. denied*, 519 U.S. 1007 (1996) (employment as an insurance agent and advertising through the parent corporation not separate products); *Castegneto v. Corporate Express*, 13 F. Supp. 2d 114 (D. Mass. 1998) (employer's contractual requirement that employee be member of national trade association not a tying of separate products; employment contract must be treated as singular).

- 37 See ¶1744e; *Automatic Radio Mfg. Co. v. Ford Motor Co.*, 272 F. Supp. 744, 748 (D. Mass. 1967), *aff'd*, 390 F.2d 113 (1st Cir.), *cert. denied*, 391 U.S. 914 (1968) (car radios separate products from cars); *Town Sound & Custom Tops v. Chrysler Corp.*, 743 F. Supp. 353, 356 (E.D. Pa. 1990), *aff'd*, 959 F.2d 469 (3d Cir.), *cert. denied*, 506 U.S. 868 (1992) (parties stipulated for purposes of motion that cars and car radios were separate products); *Heattransfer Corp. v. Volkswagenwerk*, 553 F.2d 964, 975–78 (5th Cir. 1977), *cert. denied*, 434 U.S. 1087 (1978) (affirming verdict finding tie between defendant's cars and air conditioners).

- 38 See ¶17e and 1744f.

- 39 See *Sheridan v. Marathon Petroleum Co., LLC*, 2007 WL 2900556, 2007-2 Trade Cas. ¶75,938 (S.D. Ind. Sept. 28, 2007), *aff'd*, 530 F.3d 590 (7th Cir. 2008) (dismissing tying claim; gasoline franchise and credit-card processing services on the defendant's own credit card later were simply part of the "standardized methods used to carry out the business of the distributorship"); *accord Rick-Mik Enters., Inc. v. Equilon Enters.*, 532 F.3d 963 (9th Cir. 2008) ("franchise and the method of processing credit transactions are not separate products, but part of a single product (the franchise)"); *Bouldis v. U.S. Suzuki Motor Corp.*, 711 F.2d 1319, 1331 (6th Cir. 1983) ("[C]redit ... such an inseparable part of purchase price for the motorcycles that the transaction involved only a single product"); *Faulkner Adver. Assocs. v. Nissan Motor Corp.*, 905 F.2d 769, 773 (4th Cir. 1990) (dictum: "the routine purchase of consumer goods on credit" should be deemed a single-product sale), *aff'd by an equally divided en banc court*, 945 F.2d 694 (4th Cir. 1991); *SubSolutions, Inc. v. Doctor's Assocs., Inc.*, 436 F. Supp. 2d 348 (D. Conn. 2006) (franchisor's requirement that franchisees use a particular POS (point of sale, or electronic cash register) system was not a tie of separate products when there was no demand for the POS system apart from the franchise; plaintiffs had previously conceded that there was "absolutely no demand to purchase or produce the Subway POS system except in conjunction with a Subway franchise," quoting *SubSolutions II*, 2001 WL 1860382, at 17458 (D. Conn. Apr. 6, 2001)). *Cf. Heartland Payment Sys., Inc. v. Micros Sys., Inc.*, 2008 WL 4510260, 2009-1 Trade Cas. ¶76,506 (D.N.J. Sept. 29, 2008) (defendants could have tied point-of-sale (POS) information system for processing credit card transaction to an interface required to use the system, even though the merchants did not have to pay separately for the interface); *Levicoff v. General Motors*, 551 F. Supp. 98, 102 (W.D. Pa. 1982) (car and car loan), *aff'd mem.*, 722 F.2d 732 (3d Cir. 1983); *Krause v. General Motors Corp.*, 1988 WL 109719, 1988-2 Trade Cas. ¶68,163, at 59,094 (E.D. Mich. July 25, 1988).

- 40 *General Motors Corp. v. Gibson Chem. & Oil Corp.*, 661 F. Supp. 567, 569 n.1 (E.D.N.Y. 1987) ("[T]here is no separate product market for warranties."); *Cyntegra, Inc. v. Idexx Labs., Inc.*, 520 F. Supp. 2d 1199 (C.D. Cal. 2007) (no separate products when demand for one product alone was so low that "it would be uneconomic for any company" to offer it separately); *Klo-Zik Co. v. General Motors Corp.*, 677 F. Supp. 499, 503–04 (E.D. Tex. 1987) (truck engines and warranties not separate products when no proof of sufficient demand to make unbundled warranties efficient); *Olympia Co. v. Celotex Corp.*, 597 F. Supp. 285, 299 (E.D. La. 1984) (same

for roofing materials and bond on roofing work), *aff'd on other grounds*, 771 F.2d 888 (5th Cir. 1985), *cert. denied*, 493 U.S. 818 (1989). *But see SMS Sys. Maint. Serv. v. Digital Equip. Corp.*, 188 F.3d 11, 15 (1st Cir. 1999) (finding separate products when independent organizations could and did offer paid service contracts whose coverage resembled that of a warranty).

- 41 See, e.g., *Bouldis v. U.S. Suzuki Motor Corp.*, 711 F.2d 1319, 1330 (6th Cir. 1983) (doubtful that freight allowance can be considered separate from product being transported).
- 42 *Torres v. Illinois Bell Tel. Co.*, 1987 U.S. Dist. LEXIS 7157 (N.D. Ill. 1987) (leased switchboards and maintenance a single product).
- 43 *United States v. Jerrold Elecs. Corp.*, 187 F. Supp. 545, 559 (E.D. Pa. 1960), *aff'd per curiam*, 365 U.S. 567 (1961).
- 44 See, e.g., *Johnson v. Nationwide Indus.*, 715 F.2d 1233 (7th Cir. 1983); *Siegel v. Chicken Delight*, 448 F.2d 43, 48 n.4, 50 n.8 (9th Cir. 1971); *American Mfrs. Mut. Ins. Co. v. American Broadcasting-Paramount Theatres*, 388 F.2d 272, 282 (2d Cir. 1967); *Associated Press v. Taft-Ingalls Corp.*, 340 F.2d 753, 762–64 (6th Cir.), *cert. denied*, 382 U.S. 820 (1965); *Montgomery County Ass'n of Realtors v. Realty Photo Master Corp.*, 783 F. Supp. 952, 960–61 (D. Md. 1992), *aff'd mem.*, 993 F.2d 1538 (4th Cir.), *cert. denied*, 510 U.S. 964 (1993); *Olympia*, 597 F. Supp. at 299; *Mozart Co. v. Mercedes-Benz*, 593 F. Supp. 1506, 1515 (N.D. Cal. 1984), *aff'd*, 833 F.2d 1342 (9th Cir. 1987), *cert. denied*, 488 U.S. 870 (1988); *Kugler v. AAMCO Automatic Transmissions*, 337 F. Supp. 872, 875 (D. Minn. 1971), *aff'd*, 460 F.2d 1214 (8th Cir. 1972); *Grappone v. Subaru of New England*, 534 F. Supp. 1282, 1289 (D.N.H. 1982), *rev'd on other grounds*, 858 F.2d 792 (1st Cir. 1988); *R&G Affiliates v. Knoll Int'l*, 587 F. Supp. 1395, 1403 (S.D.N.Y. 1984); *Foster v. West Alexandria Props.*, 1980 WL 1809, 1980-1 Trade Cas. ¶63,223, at 78,084, 78,087 (E.D. Va. Jan. 4, 1980); *Anderson Foreign Motors v. New England Toyota Distribs.*, 475 F. Supp. 973, 982–83 (D. Mass. 1979); *ILC Peripherals Leasing Corp. v. IBM Corp.*, 448 F. Supp. 228, 230–32 (N.D. Cal. 1978), *aff'd per curiam sub nom. Memorex Corp. v. IBM*, 636 F.2d 1188 (9th Cir. 1980), *cert. denied*, 452 U.S. 972 (1981); *Data Gen.*, 490 F. Supp. at 1104–05, 1108–09; *N.W. Controls v. Outboard Marine Corp.*, 333 F. Supp. 493, 501–04 (D. Del. 1971). See also *Digidyne Corp. v. Data Gen. Corp.*, 734 F.2d 1336, 1339 (9th Cir. 1984) (adopting reasoning of *Data Gen.*, 490 F. Supp. 1089, on single-product issue), *cert. denied*, 473 U.S. 908 (1985); *Klamath-Lake Pharm.I Ass'n v. Klamath Med. Service Bureau*, 701 F.2d 1276, 1289 (9th Cir.), *cert. denied*, 464 U.S. 822 (1983) ("Separateness is determined in part by whether the products are normally sold ... as a unit."); *Susser v. Carvel Corp.*, 332 F.2d 505, 513–14 (2d Cir. 1964) (citing competitor's market practice as relevant to tying justification), *cert. dismissed as improvidently granted*, 381 U.S. 125 (1965). On separate billing, see ¶1751f.
- 45 E.g., *Thompson v. Metropolitan Multi-List*, 934 F.2d 1566, 1576 (11th Cir. 1991) (stressing that multi-listing services were offered without board membership "in other markets"). They have also made clear that a single-product conclusion does follow simply because almost all the companies that happen to make both items A and B bundle them together if A and B are often sold unbundled in competitive markets by rivals who make only A or only B. *Data Gen. Corp. Antitrust Litig.*, 490 F. Supp. 1089, 1105 n.21 (N.D. Cal. 1980).
- 46 See, e.g., *Thompson*, 934 F.2d at 1575–76. See generally ¶1742.
- 47 See ¶1744g.
- 48 *Anderson Foreign Motors v. New England Toyota Distribs.*, 475 F. Supp. 973, 983 (D. Mass. 1979); cf. ¶1734d2 (uniform bundling by oligopolists does not have the same redeeming implications as uniform bundling in competitive market). See also *Foster v. West Alexandria Props.*, 1980 WL 1809, 1980-1 Trade Cas. ¶63,223, at 78,084 & n.5, 78,086–87 (E.D. Va. Jan. 4, 1980) (industry cannot insulate itself from tying scrutiny by adopting an accepted industrial practice; nonetheless, weight given to universal market practice where market was competitive). Although the car market was oligopolistic, a single-product finding might be warranted on grounds that delivery is frequently included in the sale of other products in competitive markets. See ¶1744f.
- 49 *Associated Press v. Taft-Ingalls Corp.*, 340 F.2d 753 (6th Cir. 1965). Cincinnati newspapers, which also served suburbs in Kentucky, were in addition required to take the Kentucky news wire service.
- 50 *Id.* at 763–64.

- 51 See ¶1744g. Such evidence also suffices to meet the plaintiff's threshold showing. See also ¶1743.
- 52 *Associated Press*, 340 F.2d at 774 (O'Sullivan, J., dissenting).
- 53 See also *Data Gen.*, 490 F. Supp. at 1105–06 (that hardware and software required joint development did not necessitate subsequent joint sales).
- 54 *Associated Press*, 340 F.2d at 772, 774.
- 55 That claim would lie in the realm of technological ties. See ¶1757. *Cf. Broadcast Music v. Moor-Law*, 527 F. Supp. 758 (D. Del. 1981), *aff'd mem.*, 691 F.2d 490 (3d Cir. 1982) (refusing to use tying law to permit plaintiff to break up defendant's blanket license of all music in its repertory so that plaintiff could have access only to country and western music). For further discussion of the point, see Herbert Hovenkamp, Mark D. Janis, Mark A. Lemley, Christopher R. Leslie, & Michael A. Carrier, *IP and Antitrust: An Analysis of Antitrust Principles Applied to Intellectual Property Law* §22.5 (3d ed. 2017 & Supp.).
- 56 *Montgomery Cnty. Ass'n of Realtors v. Realty Photo Master Corp.*, 783 F. Supp. 952 (D. Md. 1992).
- 57 *Id.* at 955–56.
- 58 *Id.* at 953, 955.
- 59 *Id.* at 953, 961.
- 60 *Id.* at 956, 960.
- 61 *Id.* at 955, 960–61. While earlier practice under a different technology does not address the defendant's cost of joint provision under new technology, it can indicate a continuing customer preference for combined text and pictures.
- 62 See ¶¶1744b and 1744g. Two more robust rationales for the court's single-product conclusion are that the bundled words and photographs constituted either a new product or a finished product. See ¶1746e2 (applying new-product rationale) and ¶1748b2 (same for finished-product rationale).
- 63 *Miller v. Granados*, 529 F.2d 393, 396 (5th Cir. 1976); *Johnson v. Nationwide Indus.*, 715 F.2d 1233 (7th Cir. 1983); *Jones v. 247 E. Chestnut Props.*, 1974 WL 1012, 1975-2 Trade Cas. ¶60,491, at 67,162 (N.D. Ill. Nov. 14, 1974); *Foster v. West Alexandria Props.*, 1980 WL 1809, 1980-1 Trade Cas. ¶63,223, at 78,084, 78,087 (E.D. Va. Jan. 4, 1980); *Mission Hills Condo. Ass'n M-1 v. Corley*, 570 F. Supp. 453, 456, 460–61 (N.D. Ill. 1983); *Hodge v. Villages of Homestead Homeowner Ass'n*, 726 F. Supp. 297 (S.D. Fla. 1989). See also *305 E. 24th Owners Corp. v. Parman Co.*, 714 F. Supp. 1296, 1305 (S.D.N.Y. 1989), *aff'd*, 994 F.2d 94, 97 (2d Cir. 1993) (same with cooperative apartment corporation instead of condominium). Older decisions are discussed in Herbert Hovenkamp, *Tying Arrangements in the Real Estate Market: Federal Antitrust and Local Land Development Policy*, 33 *Hastings L.J.* 325 (1981).
- 64 *Levinson v. Maison Grande*, 517 F. Supp. 963 (S.D. Fla. 1981); *Johnson v. Nationwide Indus.*, 450 F. Supp. 948, 951 (N.D. Ill. 1978), *aff'd on other grounds*, 715 F.2d 1233 (7th Cir. 1983). See also *305 East*, 714 F. Supp. at 1305 (tie of cooperative units and garage).
- 65 See *Chatham Condo Ass'ns v. Century Vill.*, 597 F.2d 1002 (5th Cir. 1979); *Thomas v. Soper*, 746 F.2d 1451, 1452 (11th Cir. 1984).
- 66 *Levinson*, 517 F. Supp. 963; *Bennett v. Behring Corp.*, 737 F.2d 982 (11th Cir. 1984).
- 67 *Chatham*, 597 F.2d at 1013. See also *Hodge*, 726 F. Supp. at 298–99 (quoting *Chatham* and concluding question of fact presented).
- 68 See *Sobrato v. Prudential Ins. Co.*, 632 F.2d 786 (9th Cir. 1980) (land and land development not separate products). *Cf. Souza v. Estate of Bishop*, 821 F.2d 1332 (9th Cir. 1987) (house not separate product from leasehold). By contrast, bundling a land lease with the purchase of a mobile home might involve separate products because they are often sold unbundled. *Vermont Mobile Home Owners Ass'n v. LaPierre*, 94 F. Supp. 2d 519 (D. Vt. 2000) (finding fact issue whether mobile home and lot were separate products). *Cf. Ware v. Trailer Mart*, 623 F.2d 1150 (6th Cir. 1980) (remanding for further proceedings to determine if trailer park

had sufficient market power to invoke per se rule and, if not, whether arrangement was invalid under rule of reason where all the other 24 trailer parks in town had same requirement).

- 69 A contrary conclusion would seldom bring an illegality holding, for few condos have the market power that triggers the per se rule or bring about enough foreclosure to violate the rule of reason. In *305 East 24th Owners Corp. v. Parman Co.*, 714 F. Supp. 1296, 1305 (S.D.N.Y. 1989), the court held that the garage and cooperative units were separate products in part because the defendant itself had sold them separately on numerous other occasions. See *305 E. 24th Owners*, 714 F. Supp. at 1305. Although not explicitly adopting the rule of reason, the court went on to require more serious proof of anticompetitive effects than courts usually do in per se cases. See *id.* at 1307–08.
- 70 Some condominium cases have explicitly relied on this evidence in reaching the single-product conclusion. See *Foster v. West Alexandria Props.*, 1980 WL 1809, 1980-1 Trade Cas. ¶63,223, at 78,084, 78,087 (E.D. Va. Jan. 4, 1980); *Johnson v. Nationwide Indus.*, 715 F.2d 1233 (7th Cir. 1983). Of course, that real estate management services are sold separately from condominiums does not alone justify a separate-products conclusion. Dicta in *Jack Walters & Sons Corp. v. Morton Building*, 737 F.2d 698, 703 (7th Cir.), *cert. denied*, 469 U.S. 1018 (1984), feared that *Jefferson Parish* might point the other way, but it does not unless in addition condominiums are commonly sold unbundled from management service contracts in competitive markets. See ¶d2.
- 71 See generally ¶1717f4 (discussing justification of such long service contracts).
- 72 See *Johnson v. Nationwide Indus.*, 715 F.2d 1233, 1236–37 (N.D. Ill. 1978) (whether condominiums and management contracts are one product turns on whether duration of contract is unreasonable); *Foster v. West Alexandria Props.*, 1980 WL 1809, 1980-1 Trade Cas. ¶63,223, at 78,088 (E.D. Va. Jan. 4, 1980) (one product if contract duration short).
- 73 See, e.g., *Brown v. Cameron-Brown Co.*, 1979 WL 1629, 1979-1 Trade Cas. ¶62,656, at 77,704 (E.D. Va. Mar. 23, 1979), *rev'd on other grounds*, 652 F.2d 375 (4th Cir. 1981). See also *Spens v. Citizens Fed. Sav. & Loan Ass'n*, 364 F. Supp. 1161 (N.D. Ill. 1973) (conditioning mortgage loan on tax prepayment is not an illegal tie-in).
- 74 *Stavrides v. Mellon Nat'l Bank & Trust Co.*, 353 F. Supp. 1072, 1076–77 (W.D. Pa. 1973), *aff'd on other grounds*, 487 F.2d 953 (3d Cir. 1973); *Bass v. Boston Five Cent Sav. Bank*, 478 F. Supp. 741, 747 (D. Mass. 1979).
- 75 *Bass*, 478 F. Supp. at 746; see also *Stavrides*, 353 F. Supp. at 1074–75 (recounting similar evidence for market at hand).
- 76 *Stavrides*, 353 F. Supp. at 1076. If the conspiracy were alleged only in the local market and uniform bundling were conceded in other competitive markets, then a single-product conclusion would still follow, see ¶1744c, but the statement of facts leaves it unclear whether this was the case. In any event, whether or not there were separate products, a naked horizontal agreement requiring bundling would be an unlawful restraint of trade.
- 77 *Bass*, 478 F. Supp. at 745–47. A single product could also be found because (1) the right to make escrow payments for taxes and insurance was a phantom tied product (¶1750a) or (2) federal and state regulations required or encouraged the bundling of the associated services into the loans. *Brown v. Cameron-Brown Co.*, 1979 WL 1629, 1979-1 Trade Cas. ¶62,656, at 77,704 (E.D. Va. Mar. 23, 1979); *Spens v. Citizens Fed. Sav. & Loan Ass'n*, 364 F. Supp. 1161, 1163 (1973) (N.D. Ill. 1973); ¶1749).
- 78 *Collins v. Associated Pathologists*, 844 F.2d 473 (7th Cir.), *cert. denied*, 488 U.S. 852 (1988); *Drs. Steuer & Latham v. National Med. Enters.*, 672 F. Supp. 1489 (D.S.C. 1987), *aff'd mem.*, 846 F.2d 70 (4th Cir. 1988).
- 79 *Drs. Steuer & Latham*, 672 F. Supp. at 1497–99 & 1506 (finding only one possible exception). See ¶1744.
- 80 *Drs. Steuer & Latham*, 672 F. Supp. at 1498.
- 81 *Collins*, 478 F. Supp. at 477; *Drs. Steuer & Latham*, 672 F. Supp. at 1497–98, 1505–07 & n.13; see ¶1743a.
- 82 *McMorris v. Williamsport Hosp.*, 597 F. Supp. 899 (N.D. Pa. 1984).
- 83 *Id.* at 912.

- 84 Hybrids also exist, such as those that reimburse medical payments to all providers, but at a higher rate for the plan's preferred providers. These can be analogized to package discount ties that influence or even determine patient choices. See [¶1758](#).
- 85 *Klamath-Lake Pharm. Ass'n v. Klamath Med. Serv. Bureau*, 701 F.2d 1276, 1288–90 (9th Cir. 1983). See *Abraham v. Intermountain Health Care, Inc.*, 461 F.3d 1249 (10th Cir. 2006) (rejecting claim that defendant health provider tied membership in the plan to customers' purchase of its NSEC ("non-surgical eye care ") in suit by optometrists, who were alternative providers of the care; here, plaintiffs allege that "purchasing an IHC managed care plan also requires the buyer to purchase NSEC only from an IHC panel ophthalmologist, rather than from a different source such as an optometrist." *Id.* at 1264. The court notes that the claim is an attack on the very concept of managed care, which bundles diverse health services into a single contract, often with designated providers, for a single premium; citing and following [¶1745g4](#) ; ultimately concluding that defendant had no economic interest in the various services, including NSEC).
- 86 See [¶1750](#) (tying claims involving illusory second products).
- 87 *Klamath*, 701 F.2d at 1290.
- 88 *De Modena v. Kaiser Found. Health Plan*, 743 F.2d 1388, 1395–96 (9th Cir. 1984), *cert. denied*, 469 U.S. 1229 (1985). Unlike in *De Modena*, the defendant in *Klamath* did not insist on use of its own pharmacies but was willing to allow drugs to be supplied by any pharmacy willing to take the price it was willing to pay. In such a case, there is no foreclosure for per se purposes, see Ch. 17B, or indeed any foreclosure of anyone willing to charge the price defendant will pay. But, of course, a single-product conclusion bars tying inquiry even if the insurer insists the drugs be supplied by itself or someone financially related.
- 89 *De Modena*, 743 F.2d at 1396.
- 90 For example, the corporate practice of medicine doctrine prohibited corporations from providing or charging for medical care (even if they employed physicians to do the work) on the ground that corporations were not licensed medical professionals.
- 91 *Faulkner Adver. Assocs. v. Nissan Motor Corp.*, 905 F.2d 769, 771 & n.2 (4th Cir. 1990), *aff'd by an equally divided en banc court*, 945 F.2d 694 (4th Cir. 1991).
- 92 *Id.* at 774.
- 93 See, respectively, [¶1751e](#) and [¶d2](#). Cf. [¶1743a](#) (buyer perceptions or desires a necessary threshold).
- 94 Indeed, no one in *Faulkner* challenged the defendant's practice of providing national advertising.
- 95 See [¶1744f](#). Cf. *Grappone v. Subaru of New England*, 534 F. Supp. 1282, 1295 (D.N.H. 1982), *rev'd on other grounds*, 858 F.2d 792, 795 (1st Cir. 1988) (applying rule of reason but not per se scrutiny on grounds regional car distributor lacked financial interest in the chosen advertisers). When the car trademark rather than cars is the alleged tying item, the advertising cannot be deemed a separate product for any purpose. See [¶1749a](#). Indeed, almost all cases involving required advertising contributions by dealers have sustained their legality, though often on grounds other than a single-product finding. See *Grappone*, 534 F. Supp. at 1295–96 (so holding and collecting cases). Any foreclosure would be trivial. The relevant tied market, despite plaintiff's assertion, was not "the advertising of Nissan automobiles," *Faulkner Adver. Assocs. v. Nissan Motor Corp.*, 905 F.2d 769, 777 n.2 (4th Cir. 1990) (Hall, J., dissenting), but included all automobile advertising and even advertising in general, for little advertising talent is brand- or product-specific. Cf. *Nicolosi Distrib., Inc. v. BMW of N. Am.*, 2011 WL 479993 (N.D. Cal. Feb. 7, 2011) (rejecting claim that BMW's requirement that dealers use original BMW paint for repairs was unlawful tying).
- 96 *Moore v. Jas. H. Matthews & Co.*, 550 F.2d 1207, 1214–15 (9th Cir. 1977), *rev'd*, 682 F.2d 830, 833–35 (9th Cir. 1982) (lots and markers); *Ringtown Wilbert Vault Works v. Schuylkill Mem'l Park*, 650 F. Supp. 823, 825 (E.D. Pa. 1986) (lots and vaults).
- 97 *Moore*, 550 F.2d at 1214–15; *Ringtown*, 650 F. Supp. at 825; *D.O. McComb & Sons v. Memory Gardens Mgmt. Corp.*, 736 F. Supp. 952, 957 (N.D. Ind. 1990). On remand, the district court in *Moore* found that lots and installation service were a single product, 1979 WL 1644, 1979-1 Trade Cas. ¶62,716, at 77,992 (D. Or. May 3, 1979), but was again reversed by the Ninth Circuit, 682 F.2d 830, 835 (9th Cir. 1982).

- 98 See *Moore* , 550 F.2d 1207 (foreclosed retailer and installer of grave markets); *Ringtown* , 650 F. Supp. 823 (foreclosed vault manufacturer); *D.O. McComb* , 736 F. Supp. 952 (foreclosed funeral home).
- 99 *Beefy Trail v. Beefy King Int'l* , 348 F. Supp. 799, 806 (M.D. Fla. 1972).
- 100 See ¶d2.
- 101 See 15 U.S.C. §§1055, 1127. The former prohibits use of a mark by a licensee to deceive the public as to the nature and quality of the goods in question. The latter defines "trademark " as "any word, name, symbol, or device " that serves "to identify and distinguish his or her goods, including a unique product, from those manufactured or sold by others and to indicate the source of the goods, even if that source is unknown. " See *Stanfield v. Osborne Indus .* , 52 F.3d 867, 871–72 (10th Cir. 1995) (discussing deceit of public that results from "naked " licensing of trademark—i.e., licensing without adequate control over the goods to which the mark is attached); *Pepsico v. Grapette Co .* , 416 F.2d 285, 289–90 (8th Cir. 1969) (invalidating in gross assignment of trademark because attaching the trademark to a different article could deceive the public). See Herbert Hovenkamp, Mark D. Janis, & Mark A. Lemley, IP and Antitrust: An Analysis of Antitrust Principles Applied to Intellectual Property Rights §21.5a4 (2002 & Supp.), which discusses the analogous problem of franchise rights and trademarks as separate products.
- 102 See ¶1749a.
- 103 The litigation interpreting that decree is *United States v. Microsoft Corp .* , 980 F. Supp. 537 (D.D.C. 1997), *rev'd* , 147 F.3d 935 (D.C. Cir. 1998). See also *Reiser v. Microsoft Corp .* , 2000 WL 335569 (9th Cir. 2000) (unpublished) (Windows operating system and built-in file management system not "separate products " for tying law purposes).
- 104 *Microsoft* , 980 F. Supp. at 539 & n.2.
- 105 *Id.* at 539.
- 106 *Id.* at 542, quoting *Jefferson Parish Hosp. Dist. No. 2 v. Hyde* , 466 U.S. 2, 19–21 (1984). See ¶1744.
- 107 *Microsoft* , 980 F. Supp. at 544. See also *Caldera v. Microsoft Corp .* , 72 F. Supp. 2d 1295 (D. Utah 1999) (refusing to grant summary judgment on claim that Microsoft unlawfully tied operating system and graphical user interface to Windows version 3; unresolved fact issues about whether bundling of the two was a sufficient technological improvement to warrant single-product conclusion).
- 108 See *United States v. Microsoft Corp .* , 147 F.3d 935 (D.C. Cir. 1998).
- 109 *Id.* at 949, citing ¶1746b in a previous edition and *ILC Peripherals Leasing Corp. v. IBM* , 448 F. Supp. 228, 233 (N.D. Cal. 1978), *aff'd per curiam* , 636 F.2d 1188 (9th Cir. 1980) ("If IBM had simply bolted a disk pack or data module into a drive and sold the two items as a unit for single price, the 'aggregation' would clearly have been an illegal tying arrangement. ").
- 110 HTML ("HyperText Markup Language ") is a computer language used for documents that are to be read on the Internet.
- 111 See *Microsoft* , 147 F.3d at 951:

Software code by its nature is susceptible to division and combination in a way that physical products are not; if the feasibility of installation from multiple disks meant that the customer was doing the combination, no software product could ever count as integrated.

And in the second round of litigation, see *United States v. Microsoft* , 65 F. Supp. 2d 1, 41 (D.D.C. 1999) (Fact Finding #163:

Routines can be packaged together into files in almost any way the designer chooses. Routines need not reside in the same file to function together in a seamless fashion. Also, a developer

can move routines into new or different files from one version of a program to another without changing the functionalities of those routines or the ability to combine them to provide integrated functionality.

Id. at 41.).

See also Fact Finding #188, 65 F. Supp. 2d at 47 (new software add-on can completely displace the code that is already there).

112 However, the circuit court emphasized that the two systems as developed in Windows 95 shared a great deal of common code. As a result, one could not install MS-DOS without installing at least part of Windows 95. 147 F.3d at 949.

113 *United States v. Microsoft Corp.*, 534 U.S. 952 (2001).

114 See *United States v. Microsoft Corp.*, 253 F.3d 34, 94–95 (D.C. Cir.), *cert. denied*, 534 U.S. 952 (2001).

115 See Ch. 17B-3.

116 See ¶1747c.

117 The problem is developed more fully in ¶1747c.

118 See ¶1758.

119 *United States v. Microsoft Corp.*, 253 F.3d 34, 88 (D.C. Cir.), *cert. denied*, 534 U.S. 952 (2001).

120 *Ibid.*

121 An alternative browser could also install such shared files at the time the browser was installed, but the court did not discuss the point.

122 *Microsoft*, 253 F.3d at 89, citing ¶1746 in a previous edition.

123 See ¶1744.

124 See ¶¶1760–1762.

125 See *Microsoft*, 253 F.3d at 95–96:

Of course, these arguments may not justify Microsoft's decision to bundle APIs in this case, particularly because Microsoft did not merely bundle with Windows the APIs from IE, but an entire browser application (sometimes even without APIs, *see id.*). A justification for bundling a component of software may not be one for bundling the entire software package, especially given the malleability of software code.

Further, the court had already condemned the "two practices that plaintiffs have most ardently claimed as tying violations " under §2 of the Sherman Act. These were "Microsoft's refusal to allow OEMs to uninstall IE or remove it from the Windows desktop, " and its "removal of the IE entry from the Add/Remove Programs utility in Windows 98. "

126 For further development, see Herbert Hovenkamp, *IP Ties and Microsoft's Rule of Reason*, 47 Antitrust Bull. 369 (2002).

EXHIBIT B

ABA Model Jury Instructions in Civil Antitrust Cases E-90

***ABA Model Jury Instructions in Civ. Antitrust Cases* > CHAPTER 2 SECTION 1 OF THE SHERMAN ACT > E. TYING ARRANGEMENTS**

Author

ABA Section of Antitrust Law

5. Instruction 5: Presence of Two Products

To determine whether [*product A*] and [*product B*] are separate and distinct products, you should consider whether there would be demand for each of them if they were offered separately. If enough customers would want to purchase [*product A*] alone and [*product B*] alone to induce sellers generally to provide [*product A*] alone and [*product B*] alone, then [*product A*] and [*product B*] are separate products. On the other hand, if there is very little demand for one of the products by itself, that is, without the other product, then [*product A*] and [*product B*] are not two separate products for the purposes of the tying claim, even if they are sometimes sold separately.

Products may be separate products even if one of them is useless without the other. The relevant issue is whether there is sufficient demand from customers to induce sellers to provide them separately, even if the customer needs to obtain both products from one or more suppliers.

NOTES

The consumer demand approach is mandated by *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 19-22 (1984). See also *Eastman Kodak Co. v. Image Tech. Servs., Inc.*, 504 U.S. 451, 462 (1992) ("For service and parts to be considered two distinct products, there must be sufficient consumer demand so that it is efficient for a firm to provide service separately from parts."). A more recent discussion of the analysis used to determine the existence of separate products is presented by *United States v. Microsoft Corp.*, 253 F.3d 34, 85-89 (D.C. Cir. 2001).

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EXHIBIT C

Antitrust Law: An Analysis of Antitrust Principles and Their Application

- Areeda and Hovenkamp, ¶1743. Threshold Requirements and Burdens: Buyer Interest and Seller Ability

Antitrust Law: An Analysis of Antitrust Principles and Their Application - Areeda and Hovenkamp
 Phillip E. Areeda (late) & Herbert Hovenkamp, Antitrust Law: An Analysis of Antitrust Principles and Their Application ¶1743. (Fourth and Fifth Editions, 2023 Cum. Supp. 2016-2022)
 Fourth and Fifth Editions, 2023 Cum. Supp.

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Last Updated: 8/2023

Before the separate-products issue is even in play, plaintiffs must allege and produce sufficient facts. Too often, courts act as if the plaintiff's threshold burden is merely to describe the defendant's product bundle in "two product " language. ^[1] Because an imaginative lawyer can always do that, such a semantic threshold provides no effective screen. Some preliminary screen is necessary. While the single-product inquiry is itself a screen, it is sufficiently complex that it should be avoided unless some plausible case can be made that the inquiry is worthwhile.

In practice, courts generally give the plaintiff the threshold burden of proving (1) that *some* customers actually want the items separated and (2) that separating them is physically and economically possible. If those threshold burdens are met, the defendant has the burden of production on each single-product rationale the defense presents.

1743a. Threshold proof of buyer interest.—If no buyers want the unbundled items, then inquiry into the market factors addressed in ¶¶1744–1750 is pointless. Nothing useful could be accomplished by condemning the bundle, because no unbundled items would in fact be purchased. ^[2] Nor would anything useful be accomplished if the number of buyers interested in buying unbundled items comprise an insignificant share of the tied market.

Requiring the plaintiff to produce evidence about customer desires seems appropriate. The relevant information is not specially available to the defendant alone. Moreover, it is hard for the defendant to show the negative—that no customers want the items unbundled. By contrast, the plaintiff's initial burden of production is not difficult to meet. Proof that some buyers, at some time, in some area, bought the items separately would ordinarily suffice, as would evidence that some buyers requested or wanted the items separated. The latter showing may be the only means of meeting the threshold burden when the tying defendant is a monopolist who never gave buyers an opportunity to buy unbundled. If customers were intimidated not to make such requests or were deprived of the information that would have made them want the items separated, the plaintiff must come forward with such evidence and with proof that some customers would have requested or wanted the items separated but for such intimidation or information failure.

Thus, although customer perceptions and requests do not *suffice* to prove separate products, ^[3] some proof of buyer interest is necessary. The precedent is consistent with this proposition. *Jefferson Parish* examined evidence of buyer preferences and found that customers or their buying agents (namely, physicians) often requested the provision of anesthesiological services from someone separate from the hospital. ^[4] And the case cited other evidence that customers regarded hospital and anesthesiological services as separate and would like to receive them separately. ^[5] Similarly, many lower court cases have held that plaintiffs must make a threshold showing that some significant set of buyers have requested or wanted the items separated. For example, while

anesthesiology might be something that a patient would request separately, pathology services were found not to be. ^[6]

1743b. Threshold proof of separability.—Threshold proof of seller ability to unbundle should also be required. If unbundling is not physically or economically feasible, there is no point in ordering firms to unbundle. In any event, society will not get the benefit of competitive unbundled markets, no matter what the courts order.

Although the defendant may have better information on separability, the difficulty of proving a negative suggests placing the burden of production on the plaintiff. In any event, data on the general possibility of separation will often be available from independent sources, and modern discovery is sufficiently broad that plaintiffs should be able to find some evidence from the defendant on the topic.

Moreover, the plaintiff can generally carry this burden by presenting proof that some firms, at some time, in some area, sold the products separately. Where there is no evidence the items have ever been unbundled, the likelihood of an anticompetitive tie is sufficiently weak that plaintiffs should have the burden of producing some evidence that the products could be separated and still be functional either alone or when combined with another item by the buyer.

Loose judicial language sometimes suggests that separability is not merely a threshold but actually suffices to prove separate products. For example, *Jefferson Parish* emphasized that "the [tied] component of the package ... could be provided separately." ^[7] Standing alone, this language might indicate separate products whenever buyer demand is large enough to support separate provision—that is, whenever it is physically and economically *possible* to sell the items unbundled. Of course, the Court did not mean this, for its preceding sentence insisted that a bundle constitutes a single product unless "it is efficient" to offer its components separately.

That bundling is required to sell the items at all certainly proves a single product. ^[8] But finding separate products merely because separation is possible defines "product" too narrowly and a "tie" too broadly. One could unbundle the components of almost any product and still sell them so long as the costs to buyers of having the components assembled (or doing it themselves) do not exceed the value of the product. Even cars can be sold in parts kits. And surely shoes could be sold separately, and pens could be sold separately from their caps. But the costs—inefficient assembly, maintaining and monitoring separate inventories, and loss of buyer convenience—would be enormous.

To be sure, one might be tempted to say that there is a less restrictive alternative. Defendants could offer the items both bundled and unbundled at prices that reflect whatever additional cost unbundling entailed, and then let the customers decide. But even this sort of arrangement would inflict additional administrative costs that are not worth bearing if there is not sufficient buyer demand to induce competitive markets to provide the items unbundled. ^[9] Further, the costs of judicial review to determine whether all the price differentials matched the cost differentials, or exceeded them in a way that produced a package discount tie, would be overwhelming. ^[10]

Making separability determinative would also conflict with ample other evidence about the Court's focus on the efficiency, rather than possibility, of separate provision. ^[11] "For [two items] to be considered two distinct products, there must be sufficient consumer demand so that it is *efficient* for a firm to provide [one item] separately from [the other]." ^[12]

1743c. Result of meeting threshold burden.—Once the plaintiff has produced evidence that separating the items is both possible and desired by some buyers, the burden of production shifts to the defendant to produce evidence supporting one of the single-product rationales described in ¶¶1744–1750. Sometimes it is said that the defendant must raise a single-product defense. ^[13] However, the issue is not a defense in the ordinary sense that the defendant must carry the burden of persuasion on the issue. Rather, the defendant simply has the burden of producing evidence of competitive market analogues under ¶1744 or evidence supporting one of the other rationales under ¶¶1746–1750 for finding a single product.

At that point, the plaintiff must produce contrary evidence. With such evidence on both sides, the plaintiff has the burden of persuading the tribunal that two products exist under *all* the single-product rationales put in issue by the defendant. In resolving the issue, the court can and should develop and employ a range of presumptions to guide the inquiry, as subsequent Paragraphs illustrate. Although some courts have asked the jury to decide whether two products are present, ^[14] the issue should be regarded as a question of law to be resolved by the judge. ^[15] *First*, determining whether separate products exist is part of determining whether there is a "restraint of trade" within the meaning of the Sherman Act and whether the practice falls within the per se rule against "tying." These are clearly legal questions. *Second*, determining separate products is a technical, often difficult issue beyond the ken of most juries and is better left to judges, who are not only more competent and experienced about such matters but can cumulate their experience through judicial opinions. *Third*, such judicial opinions render separate-product determinations more transparent, predictable, and uniform. *Fourth*, the relevant definitions are driven mainly by policy concerns.

Footnotes

- 1 See Comment, *The Single Product Issue in Recent Tying Litigation* , 1980 Ariz. St. L.J. 871, 879 & n.42 (collecting sources).
- 2 The issue is explored in ¶1724 under the rubric of foreclosure.
- 3 See ¶1751e.
- 4 *Jefferson Parish Hosp. Dist. No. 2 v. Hyde* , 466 U.S. 2, 22–23 & n.36 (1984).
- 5 *Id.* at 19–23. See also *Times-Picayune Publ'g Co. v. United States* , 345 U.S. 594, 613 (1952) (focusing on whether advertising buyers viewed allegedly tied items as distinct or fungible).
- 6 *Collins v. Associated Pathologists* , 844 F.2d 473, 477 (7th Cir.), *cert. denied* , 488 U.S. 852 (1988); *Drs. Steuer & Latham v. National Med. Enters.* , 672 F. Supp. 1489, 1497–98, 1505–07 & n.13 (D.S.C. 1987) (same), *aff'd mem.* , 846 F.2d 70 (4th Cir. 1988); *Allen-Myland v. IBM* , 693 F. Supp. 262, 289–90 (E.D. Pa. 1988), *vacated* , 33 F.3d 194 (3d Cir. 1994) (holding plaintiff met its burden to show that upgrades of large computers and installation labor were separate products). See also *Klozik Co. v. General Motors Corp.* , 677 F. Supp. 499, 504, 506 (E.D. Tex. 1987) (holding plaintiffs failed to raise two-products issue where they had never requested trucks without warranties).
- 7 *Jefferson Parish Hosp. Dist. No. 2 v. Hyde* , 466 U.S. 2, 22 (1984); see also *Eastman Kodak Co. v. Image Technical Servs.* , 504 U.S. 451, 462 n.5 (1992) (quoting court of appeals finding that the demand for the two items "can be separated"); *Foster v. West Alexandria Props.* , 1980 WL 1809, 1980-1 Trade Cas. ¶63,223, at 78,083–87 (E.D. Va. Jan. 4, 1980) (whether two items are separate products turns on whether it is "practical or possible " to separate them).
- 8 Although not directly addressing the tying question, *BMI* 's reasoning provides some support for this conclusion. In rejecting a price-fixing claim, the Court concluded that the blanket license that bundled together compositions was itself a product different from those compositions because it was not economically feasible to sell the compositions separately. *Broadcast Music (BMI) v. CBS* , 441 U.S. 1, 22 (1979).
- 9 See *ILC Peripherals Leasing Corp. v. IBM Corp.* , 448 F. Supp. 228, 233 (N.D. Cal. 1978), *aff'd per curiam sub nom. Memorex Corp. v. IBM* , 636 F.2d 1188 (9th Cir. 1980), *cert. denied* , 452 U.S. 972 (1981) (although it would be possible for defendants to sell the items separately at a separate price, they are not required to do so by tying law).
- 10 See ¶1758.
- 11 See ¶1745a. It would also conflict with the same-product analysis in ¶1747, and with the holding in *Times-Picayune Publishing Co. v. United States* , 345 U.S. 594, 613 (1952), which found advertising in the morning and evening papers one product even though the publisher could sell such advertising separately and had done so.

- 12 *Eastman Kodak Co. v. Image Technical Servs.* , 504 U.S. 451, 462 (1992) (emphasis added) (restating *Jefferson Parish* test).
- 13 *Cf. The Single Product Issue in Recent Tying Litigation* , 1980 *Ariz. St. L.J.* 871, 879 & n.42 (collecting sources).
- 14 See, e.g., *Levinson v. Maison Grande* , 517 F. Supp. 963, 965, 968–70 (S.D. Fla. 1981) (giving jury instruction on separate-products issue but then finding one product as a matter of law); see also *Bennett v. Behring* , 96 F.R.D. 343, 349 (S.D. Fla. 1982) (noting that a few district courts had allowed jury to decide separate-products question).
- 15 See, e.g., *Mozart Co. v. Mercedes-Benz* , 833 F.2d 1342, 1345 (9th Cir. 1987), *cert. denied* , 488 U.S. 870 (1988) (noting with apparent approval district court determination of separate products as a matter of law); *Southern Pines Chrysler-Plymouth v. Chrysler Corp.* , 826 F.2d 1360, 1363 (4th Cir. 1987) (reversing jury determination of separate products; issue a matter of law); *California Glazed Prods. v. Burns & Russell Co.* , 708 F.2d 1423 (9th Cir.), *cert. denied* , 464 U.S. 938 (1983) (same); *Data Gen. Corp. Antitrust Litig.* , 490 F. Supp. 1089, 1108 (N.D. Cal. 1980) (finding two products as a matter of law and noting that if the issue were to be presented to a jury it would have to direct a verdict). See also *Will v. Comprehensive Accounting Corp.* , 776 F.2d 665, 670 & n.1 (7th Cir. 1985), *cert. denied* , 475 U.S. 1129 (1986) (noting district court had given jury instruction on separate-products issue that many other cases resolved as a matter of law, but declining to review instruction because no market power present); *Downs v. Insight Commc'ns Co.* , 2011 WL 1100456, 2011-1 Trade Cas. ¶77,391 (W.D. Ky. Mar. 22, 2011) (consumers properly alleged that premium cable services and set-top boxes were separate products).

EXHIBIT D

Antitrust Law: An Analysis of Antitrust Principles and Their Application - Areeda and Hovenkamp, ¶1744. The Primary Tests: Competitive Market Practices

Antitrust Law: An Analysis of Antitrust Principles and Their Application - Areeda and Hovenkamp
 Phillip E. Areeda (late) & Herbert Hovenkamp, Antitrust Law: An Analysis of Antitrust Principles and Their Application ¶1744. (Fourth and Fifth Editions, 2023 Cum. Supp. 2016-2022)
 Fourth and Fifth Editions, 2023 Cum. Supp.

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Last Updated: 8/2023

1744a. Introduction and summary.—Courts adjudicating the single-product question often rely on whether bundling of the items in question is a common market practice. ^[1] In ¶b we develop the rationale for finding a single product when bundling is universal in a competitive market. We then extend this analysis to find a single product when other competitive markets for the same product uniformly bundle even though the defendant's market is noncompetitive (¶c) or when bundling is not quite universal (¶d).

When bundling and unbundling are each common in competitive market analogues, the items should normally be deemed separate products. When one of the items in the defendant's bundle is frequently bundled to a *different* second item across many competitive markets, we find a single product, especially for per se purposes (¶f). Finally, we turn to noncompetitive analogues, concluding that neither bundling nor unbundling in a noncompetitive market indicates a single product (¶g).

Even if not a single product under this Paragraph's market practices test, two items may be a single product under one or more of the supplemental rationales detailed in ¶¶1746–1750. Similarly, a single-product conclusion under the competitive market practices test remains valid even if none of the supplemental rationales would support the same conclusion. Being a single product under any single rationale precludes further tying inquiry.

1744b. Universal competitive market bundling.—Imagine that the markets for producing *A* and *B* are both perfectly competitive and that all sellers sell *A/B* bundled and do not offer *A* or *B* separately. Because sellers in a competitive market would offer *A* or *B* unbundled if it were profitable to do so, the universal bundling proves one or more of the following: (1) customers generally prefer *A* and *B* bundled, (2) producing or selling *A/B* jointly produces sufficient cost savings that customers generally prefer those savings to any utility from buying *A* and *B* alone or from different sellers, or (3) selling *A/B* jointly improves quality in a way that generally increases the value to customers more than any disutility (or price increase) from being unable to purchase *A* and *B* separately. In other words, *given* the costs and quality of having the items bundled versus unbundled, customers generally prefer them bundled. Furthermore, it must be true that no business could earn a normal rate of return by serving separately those few customers who, given the relative costs and quality, prefer the items unbundled. ^[2]

In such circumstances, *A* and *B* clearly constitute a single product, and their bundling is not a tie. Indeed, in such situations every seller would maximize its profits by bundling *A* and *B*. Finding a tie of two products thus not only unwisely interferes with consumer preferences and efficiency, but would likely be futile. We draw the same conclusion when the market is not perfectly competitive but is unconcentrated and workably competitive, for some sellers in such markets would likely provide the items unbundled if sufficient demand existed to make that profitable.

To illustrate, consider an antitrust claim that a manufacturer tied together right and left shoes. Our analysis dictates the single product that seems intuitively obvious. ^[3] Because even in competitive markets sellers

generally refuse to sell right and left shoes separately, a market test demonstrates both (a) that bundling right and left shoes is preferred by customers *and* (b) that the potentially less restrictive alternative of offering the shoes both bundled and unbundled is not feasible. ^[4] This is true even if some consumers may have lost a shoe and want only a single shoe replacement; it is also true even though there may be a niche market of sellers who sell single shoes to amputees or others who have specialized single-shoe needs. Similarly, no tie exists for a seller who sells pens only with pen caps, cars only with bumpers, or televisions only with the television tube installed. In all these cases, a market test demonstrates that the items should be deemed a single product incapable of being tied together.

To be sure, all the policy reasons listed above for regarding A / B as a single-product would also be admissible as defenses. ^[5] But that would require courts to make what are generally difficult, uncertain, and often impossible assessments regarding the tie's cost, quality, and preference effects. Without requiring such elusive assessments, the single-product determination relies on a *market test* showing that cost savings, consumer preferences, or quality control effectively dictate bundling. In this manner, the single-product doctrine can fulfill its role as a desirable screen on further inquiry without replicating the very inquiry it means to screen. ^[6]

1744c. Analogous competitive market bundling.—Of course, if the market for A/B were perfectly or workably competitive, the defendant would lack sufficient market power in the allegedly tying market to violate the per se rule, ^[7] and foreclosure in the tied market would not suffice to violate the rule of reason. ^[8] However, the ^[1b] analysis has implications even when such market power or substantial foreclosure exists in the defendant's market because uniform bundling may also be the practice in an analogous market that is competitive.

1744c1. Geographical market analogue.—Suppose that a defendant who sells A / B only as a bundle has substantial market power over A in a given geographical area but that sellers in competitive markets elsewhere also sell A/B only bundled. This indicates one product.

The reasons are straightforward. We can tell from the prevalence of bundled sales in the competitive areas that buyers there, given the relative costs and quality, must prefer the items bundled. The same should also be true in the defendant's area unless for some reason consumer preferences, production costs, or quality concerns differed in the defendant's area. But the likelihood that such a difference will exist and be substantial enough to justify treating A/B as two products is generally so low that further antitrust inquiry seems unwarranted. Thus, if a defendant car manufacturer who sells cars only with tires attached has market power in its area but can point to other, competitive car markets where sellers also refuse to sell cars without tires, any tying claim should be dismissed on the ground that the car with tires is a single product. ^[9]

1744c2. Historical market analogue.—Suppose a defendant comes to have power in a market that used to be competitive. Suppose further that, when the market was competitive, sellers always sold A / B jointly. This historical evidence, like contemporaneous evidence from other areas, suggests that consumer preferences or cost/quality considerations dictate treating A / B as a single product. The implication is not quite as strong as with contemporaneous analogues because consumer preferences, production costs, and quality concerns are more likely to vary over time than between regions. Still, unless the plaintiff can demonstrate significant shifts in preferences, costs, or quality concerns, the court should presume that the A/B bundle constitutes a single product. ^[10]

Thus, notwithstanding present monopoly power, a shoe monopolist presumptively prevails against a claim of tying left and right shoes by showing that competitive shoe markets in the past always sold right and left shoes together. Similarly, a now-powerful manufacturer who sells cars with tires can point out that cars were always sold with tires even in the market's highly competitive eras. And if computers and operating systems were traditionally bundled together when the market for both was competitive, they remain one product even though a seller now has great market power.

1744c3. Non-locked-in market analogue.—Consider a defendant who has market power over certain locked-in buyers (such as longtime franchisees) but who has no market power—and faces stiff competition—over

buyers who are not locked in (such as new franchisees). ^[11] Suppose further that the defendant bundles items *A/B* for locked-in buyers (such as the continuing franchise with a lease) but that the defendant and its competitors also bundle *A/B* for buyers who are not locked in.

Again, the court should presume that the *A/B* bundle constitutes a single product. That sellers competing vigorously for the non-locked-in buyers offer the same sort of bundle strongly suggests that the bundle is efficient. Unless the plaintiff can present strong evidence that the cost/quality/preference parameters differ for the new and locked-in buyers, the bundle is a single product.

1744c4. Competitive fringe within defendant's market.—Finally, consider a defendant who offers *A* and *B* only as a bundle, has market power in *A*, and even substantially forecloses the market for *B* but who shows parallel bundling by all of the many unconcentrated competitors. Should *A/B* be considered a single product, and thus a non-tie?

That the smaller competitors bundle *A/B* in the very same market as the defendant makes it unlikely that the cost, quality, or consumer preference implications of the bundling differ among the sellers. To be sure, high market concentration might make oligopolistic coordination possible ^[12] and induce bundling by fringe competitors who wish to avoid either retaliation or the unraveling of the oligopoly. However, this oligopoly scenario seems unlikely when each of many small competitors has incentives to expand its market share by providing unbundling beneficial to customers. Moreover, any presumption that parallel tie-ins in oligopolistic markets cause anticompetitive effects is weak at best. ^[13] Thus, the bundle should be treated as one product, at least absent affirmative evidence that the fringe competitors are bundling only because of oligopolistic discipline.

1744c5. Different test under rule of reason?—Should the above rationales for finding a single product preclude not only per se tying claims but also rule of reason *tying* claims by indicating a single product under both? Yes, even for those who might generally favor a bifurcated single-product test, ^[14] for they indicate a conclusive justification for the bundling that applies no matter how high the foreclosure. ^[15] If, given relative costs and quality, consumers prefer the items bundled, forcing unbundling would decrease consumer welfare and economic efficiency even if the defendant were a monopolist. Moreover, in a real sense, it is not a marketing decision that joins the items together, but economic and technological realities.

To be sure, in a noncompetitive market declaring such a bundle separate products need not be futile. The defendant's tying-market power may (if protected by high entry barriers) ironically make it possible to force it into inefficient unbundling that could not survive in a competitive market. ^[16] Nonetheless, forbidding the bundle would perversely reduce market efficiency and consumer welfare, as well as conflict with the Supreme Court's instruction that separate products should be found when sufficient separate demand exists that "it is *efficient* to offer [*A*] separately from [*B*]." ^[17]

1744d. Nonuniversal bundling in competitive analogue: unbundled sales uncommon.—We now turn from universal to predominant bundling. Suppose, for example, that in comparable competitive markets, automobile manufacturers routinely sell drivetrains only as part of automobiles, but occasionally sell them separately to specialty users. ^[18] Despite such occasional unbundling, the car with a drivetrain should be deemed a single product. That some idiosyncratic buyers sufficiently prefer the items separately to support the extra costs of separate production and distribution does not mean buyers generally prefer the items combined. Because the items would generally be bundled even in a competitive market, substantial foreclosure is thus unavoidable; requiring any given manufacturer to separate routinely bundled items *A/B* for a few rare customers will not create any significant opening for those selling item *B* alone.

Moreover, such idiosyncratic buyers may not provide sufficient demand in the defendant's market to justify requiring *all* firms with market power to offer the items separately. And if they provide enough demand for just some manufacturers, they are likely to find suppliers even in an oligopolistic market because supplying such a limited number of buyers poses little risk of upsetting current market shares.

We would find a single product for all tying purposes when unbundling is uncommon in competitive market analogues. Thus, beverages served on airplane flights are not a separate product from those flights even if a few airlines in competitive markets have sometimes charged for beverages separately. ^[19] While any definition of "uncommon" is arbitrary, we suggest that if less than 20 percent of the tying item is sold unbundled in the competitive market analogue, then the items are a single product. Where purchasers of the tying item do not always use the tied item, then the percentage of the tied item sold unbundled may be relevant. For example, suppose that half the computers sold have a certain accessory built in while the other half do not, but that only 1 percent of that accessory is purchased separately. Initially, the computer accessory bundle does not appear sufficiently common to be considered one product. However, we should ignore computer buyers who do not want the accessory at all because they tell us nothing about the efficiency of the bundle and because they cannot be foreclosed in any event. Among those who want both the computer and the accessory, only 2 percent want them unbundled. Accordingly, the two items are one product.

1744e. Nonuniversal bundling in competitive analogue: both bundling and unbundling common.—For expositional simplicity we say that a seller unbundles two items whenever it offers unbundling as a realistic option and that it bundles two items only if it requires bundled sales exclusively. ^[20] Consider a defendant with market power in *A* who sells *A*/*B* only bundled, while in competitive analogues both bundling and unbundling are common. Although a close question, we find separate products.

In the stronger case for separate products, all sellers offer the items both bundled and unbundled, with a large number of buyers taking them either way. Here, the market test indicates that offering both options is efficient, thus showing separate products. To be sure, common bundling may mean that bundling is efficient for many buyers and that a particular seller's choice not to offer the items unbundled reflects a mere marketing choice to target such buyers—perhaps a choice that does not foreclose the second market significantly. ^[21] In the more ambiguous case, many sellers in the competitive analogue sell the items unbundled, but many others sell them only bundled. For example, suppose a manufacturer with sufficient market power in one automobile market sells its autos only with a radio installed. Suppose further that in competitive markets many manufacturers sell cars with radios factory-installed, while many others offer radios as a separate option. Although this market practice points both ways, the market test indicates separate products on balance. ^[22] On the one hand, the market results show that the two items can efficiently be sold separately. Nor can the possibility of serious foreclosure in the tied item be dismissed because it is often sold separately on competitive markets. On the other hand, the market test also suggests that the efficiency of unbundling may vary for different types of firms. Some may find it inefficient ever to unbundle. ^[23] If the defendant falls into this category of firms, forbidding its bundling may increase its costs. But a defendant with market power may be more able to offer both options efficiently than smaller rivals. In any event, the per se rule often sweeps in desirable conduct, and the defendant remains free to offer an efficiency defense. ^[24] Moreover, administrative simplicity calls for the same answer as the one given when each firm bundles and unbundles.

Two administrative questions remain. *First*, how frequent must unbundling be to count as common? This is the flip side of the question of how infrequent unbundling has to be to be uncommon. Given our answer in ¶1d, we would find unbundled sales of more than 20 percent sufficient to make unbundling common and thus to indicate separate products. *Second*, what does one do when the evidence from competitive markets conflicts? Suppose in one analogous competitive market, unbundling is common, but that in a different area it is uncommon? If a bifurcated test is employed, this evidence seems sufficient to preclude per se but not rule of reason tying scrutiny. Under a uniform test, the items should be treated as separate products under both rules.

1744f. Same tied item bundled across many competitive markets.—Consider a defendant with power in the market for a given machine sold at a price that includes delivery and installation. The defendant can point to no competitive analogue bundling the same machine with delivery or installation. Can the defendant still show one product when many competitive markets for *other*, technologically similar machines commonly bundle them with delivery and installation?

We would presume a single product. In this case, the best analogue is not necessarily machines in the same relevant market, but technologically similar machines providing the same level of complexity or user installation difficulty. For example, dishwashers and water softeners are not substitutes for each other and clearly are in different relevant markets. However, both are installed in existing plumbing and electrical circuits and may present comparable setup problems. As a result, nearly universal sales of dishwashers with installation included in the price suggests a single-product conclusion when water softeners are sold in the same way.

To be sure, sometimes the products may be so different as to invalidate a presumption of similar efficiencies. Delivering and installing refrigerators, for example, may differ greatly from delivering and installing furnaces. Plaintiffs should thus be allowed to rebut a single-product presumption by showing relevant differences that undermine the normal inference of net procompetitiveness.

Perhaps the strongest single-product example is the credit provided when a product is sold for deferred payment. ^[25] In this case, however, the overlapping item—credit—is hardly likely to differ when bundled with different products in any way that significantly affects costs, convenience, or quality. And the bundling is so widespread throughout the economy that the inference of efficiency is particularly strong and the potential for market power or foreclosure particularly weak. We would thus find one product regardless of whether credit is alleged to be the tied or tying product. A similar conclusion seems appropriate for claims that a defendant's product warranty tied the product to the warranty. ^[26]

1744g. Noncompetitive market practices.—Sometimes the relevant market analogues are monopolies or oligopolies. Bundling in such a noncompetitive market carries no single-product implication. Such bundling may reflect efficiencies, but it may also reflect tying that increases market power exploitation or derives profits anticompetitively. ^[27]

In contrast, unbundling in a noncompetitive market analogue implies separate products under the market practices test. The inference is somewhat weaker than when the bundling occurs in competitive markets that require efficiency for survival. Nonetheless, while firms with market power sometimes have incentives to act anticompetitively rather than efficiently, offering items separately furthers no anticompetitive goal. We can thus infer that their practice of unbundling the items likely reflects efficiency.

Thus, the practical implication is much the same whether the noncompetitive market evinces bundling or unbundling. In either event, a single product has not been proven under the market practices test but can perhaps be shown under one of the alternative rationales. ^[28]

1744h. Joint provision economies.—The competitive market practices test offers a useful screen for ties when the relevant set of market practices is readily determined. When they are not known or when the defendant's technology has unique features, making the practices of others a less reliable guide, one can still look to the defendant's own production and distribution processes to identify a single or separate products. In her concurring opinion in *Jefferson Parish*, Justice O'Connor stated that "when the economic advantages of joint packaging are substantial the package is not appropriately viewed as two products, and that should be the end of the tying inquiry." ^[29] Justice Posner articulated the requirement as a showing of "rather obvious economies of joint provision." ^[30]

The five-Justice majority appeared at first glance to reject such an approach to the separate-product test. They read the Court's earlier decisions to state that the query should depend "not on the functional relation between " the two goods but rather "on the character of the demand " for them. ^[31] However, the cases cited for that proposition did not define "functional relation" in terms of cost savings but rather in terms of product complementarity. ^[32] These decisions, which involved such things as the elements in a combination patent, a salt injector and salt, a road emulsion and the process for applying it, an ice machine and dry ice, and a computer and punch cards, found separate products not in spite of cost savings but rather in spite of the fact that the products were typically used together. ^[33] Thus, the *Jefferson Parish* majority should be viewed not as rejecting the view that cost savings should determine a single product, *but* merely the unremarkable view that

things can be separate products even if they are complements. On the other side, the majority's statement that the separate-products test should depend on the "character of the demand" for the two products might be read to refer to the observed practices of rivals. But it could just as easily refer to the changes in consumer behavior that result when a cost savings is passed on. In sum, the *Jefferson Parish* majority is best read as inconclusive on the relationship between cost savings and the separate-products test.

The advantage of the competitive market practices test is that it can serve to screen out ties that are part of the ordinary business of a competitive market. The disadvantage is that the test becomes less valuable as products are more differentiated and diverse. Further, in such cases one must identify those other firms that belong in the same competitive market. The advantage of looking at economies of joint provision is that it requires searching no further than the relevant costs of the defendant itself. Further, it gives the defendant more room to compete by taking advantage of joint costs that accrue to its own technology, without being bound by the practices of rivals.

Of course, cost savings can be accounted for in different ways. The defendant might simply reflect its joint cost savings by a tying contract. In other situations it might offer a discount to those who take the two products together. ^[34] In many situations the defendant may be able to attain the cost savings only by producing all of its output jointly. In others it may be able readily to produce the product in multiple configurations, offering a discount on the tied version.

Footnotes

- 1 See ¶1745.
- 2 See generally ¶1734d.
- 3 See ¶1741a (collecting cases).
- 4 Cf. ¶1717d (on practicality of separate provision).
- 5 See Ch. 17E.
- 6 See ¶1741c.
- 7 See Ch. 17.
- 8 See ¶1729. This is true even though every competitor ties *A* and *B* together, such as every shoe manufacturer selling a pair of shoes. Although the cumulative foreclosure in such a case is 100 percent, foreclosure is cumulated only in concentrated markets. See ¶1729e.
- 9 Cf. ¶1741a (noting case law concluding car with tires would be single product).
- 10 Those adopting a bifurcated test may want to make the presumption conclusive for per se purposes and rebuttable for rule of reason purposes. See generally ¶1742. Cf. *United States v. Microsoft Corp.*, 253 F.3d 34, 88–90 (D.C. Cir.), *cert. denied*, 534 U.S. 952 (2001) (browsers and platforms were formerly sold separately, but trend was to combine them).
- 11 On whether such "lock-ins" indicate market power see ¶¶519 and 1740.
- 12 See ¶1734d.
- 13 See ¶1707a.
- 14 See ¶1742.
- 15 See ¶1741c. Of course, as throughout this Subchapter, a rule of reason claim may still apply under another theory. See Ch. 18; ¶1742b.
- 16 While a seller in a competitive market who failed to sell *A* / *B* jointly would be driven out of the market, high market power and entry barriers in *A* may mean the defendant's rivals cannot offer a sufficient quantity of *A* / *B* packages to drive the defendant out of business. On entry barriers, see Subchapter 4C.

- 17 *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 21–22 (1984) (emphasis added). See generally [¶1745b](#).
- 18 *Cf. Reisner v. General Motors Corp.*, 511 F. Supp. 1167 (S.D.N.Y. 1981), *aff'd*, 671 F.2d 91 (2d Cir.), *cert. denied*, 459 U.S. 858 (1982) (dismissing tying claim that manufacturer refused to sell drive train components separate from engine).
- 19 *Cf. Gas Light Co. v. Georgia Power Co.*, 313 F. Supp. 860, 869 (M.D. Ga. 1970), *aff'd on other grounds*, 440 F.2d 1135 (5th Cir. 1971), *cert. denied*, 404 U.S. 1062 (1972) (dicta: flight with meal is one product).
- 20 Sometimes the option is illusory in a way that makes the offering a de facto tie. See [¶¶1757 – 1758](#).
- 21 Consider, for example, a manufacturer who decides to advertise safety by selling all its cars with antilock brakes when they are offered as an option by all sellers in a competitive analogue.
- 22 See [¶1745f](#) (collecting cases finding cars and radios or air conditioners to be separate products).
- 23 For example, small manufacturers of an electronic product may hand-wire circuits, permitting them to include or exclude a certain feature on an individual basis. By contrast, a larger manufacturer might use a pre-printed circuit board that necessitates that all the produced circuits be alike.
- 24 See Ch. 17E.
- 25 See [¶1745e](#) –f (collecting cases).
- 26 See [¶1745e](#) (collecting cases holding warranties were not separate products from the goods under warranty).
- 27 See *Downs v. Insight Commc'ns Co., L.P.*, 2011 WL 1100456, 2011-1 Trade Cas. ¶77,391 (W.D. Ky. Mar. 22, 2011) (cable television service and set-top box for premium digital services could be separate products even though there was currently no independent demand for the boxes; such a market could emerge if defendant ceased tying).
- 28 See [¶¶1746–1750](#). However, unbundling in noncompetitive markets will generally satisfy the plaintiff's threshold showing of separate products. See [¶1743](#).
- 29 *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 40–41 (1984) (O'Connor, J., concurring, joined by Burger, C.J., Powell & Rehnquist, JJ.).
- 30 *Jack Walters & Sons Corp. v. Morton Bldg., Inc.*, 737 F.2d 698, 703 (7th Cir. 1984).
- 31 *Jefferson Parish*, 466 U.S. at 19.
- 32 See *id.* at 19 n.30.
- 33 *Id.*, citing, with parentheticals: *Mercoid Corp. v. Mid-Continent Co.*, 320 U.S. 661 (1944) (heating system and stoker switch); *Morton Salt Co. v. Suppiger Co.*, 314 U.S. 488 (1942) (salt machine and salt); *Leitch Mfg. Co. v. Barber Co.*, 302 U.S. 458 (1938) (process patent and material used in the patented process); *International Bus. Machs. Corp. v. United States*, 298 U.S. 131 (1936) (computer and computer punch cards); *Carbice Corp. v. American Patents Corp.*, 283 U.S. 27 (1931) (ice cream transportation package and coolant); *FTC v. Sinclair Ref. Co.*, 261 U.S. 463 (1923) (gasoline and underground tanks and pumps); *United Shoe Mach. Co. v. United States*, 258 U.S. 451 (1921) (shoe machinery and supplies, maintenance, and peripheral machinery); *United States v. Jerrold Elecs. Corp.*, 187 F. Supp. 545, 558–60 (E.D. Pa. 1960) (components of television antennas), *aff'd*, 365 U.S. 567 (1961) (*per curiam*).
- 34 See [¶1758](#) (package discounts as tying); see also [¶1749](#) (package or bundled discounts as exclusionary practice by dominant firm).

EXHIBIT E

**THIS EXHIBIT HAS BEEN
REDACTED IN ITS ENTIRETY**

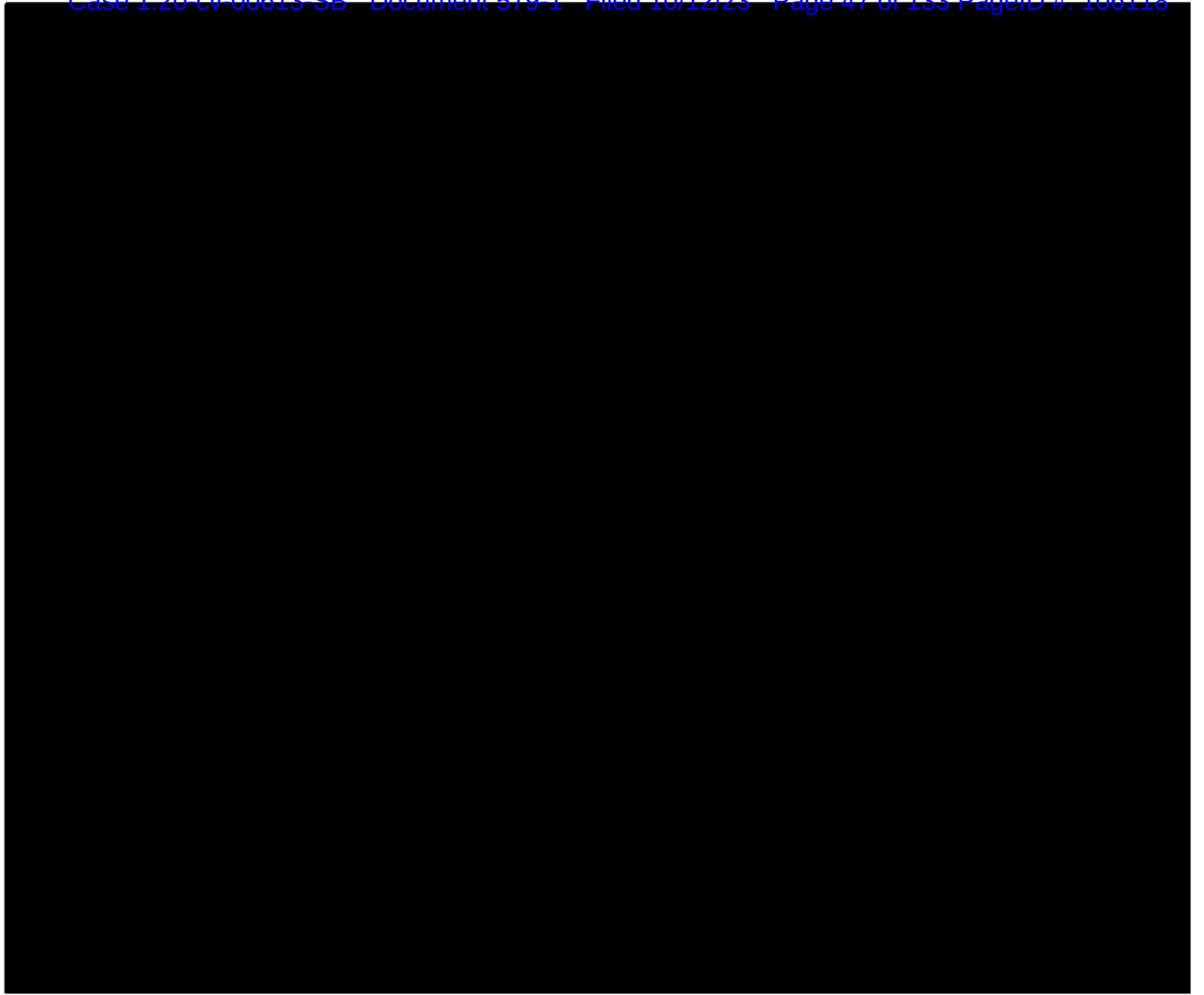
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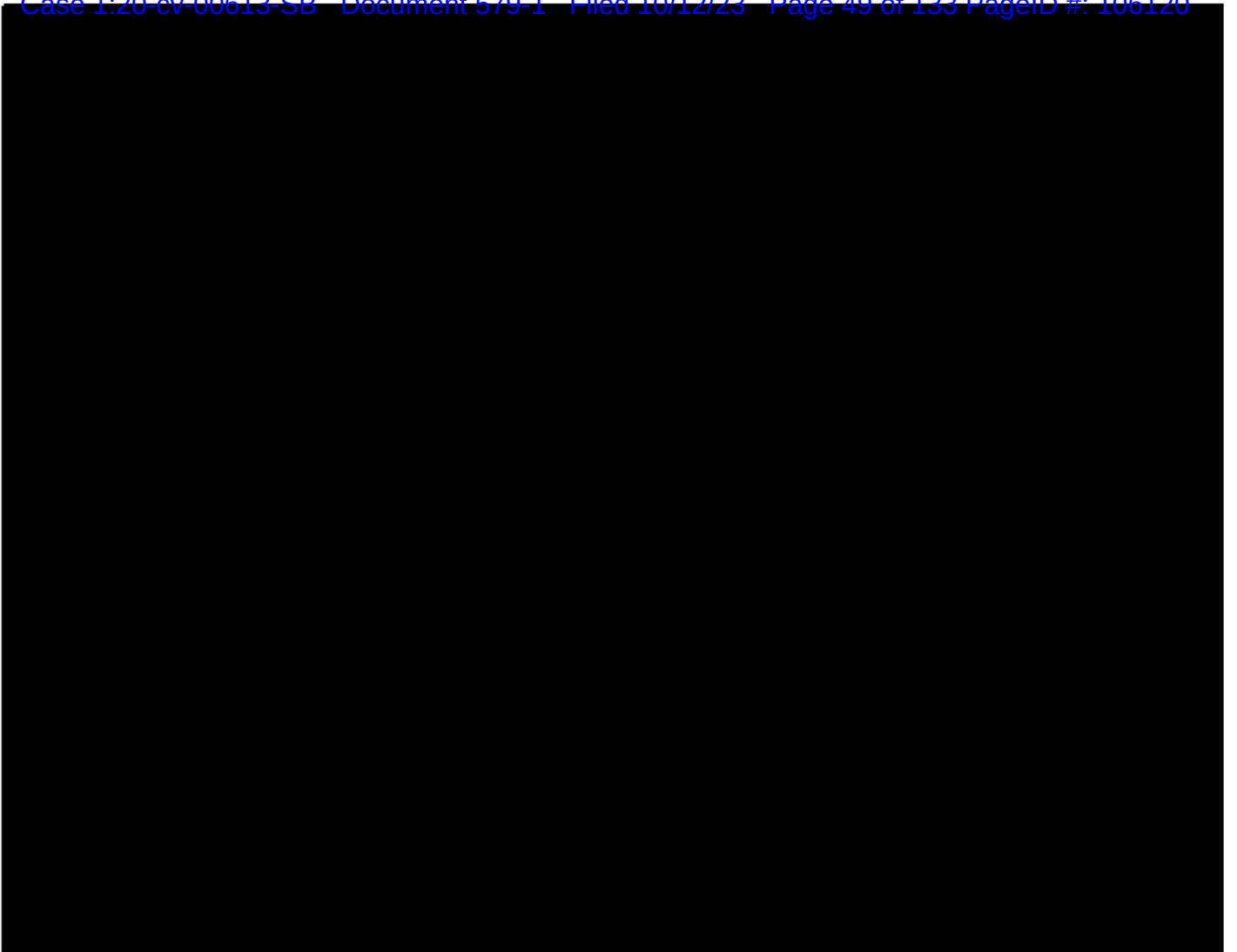
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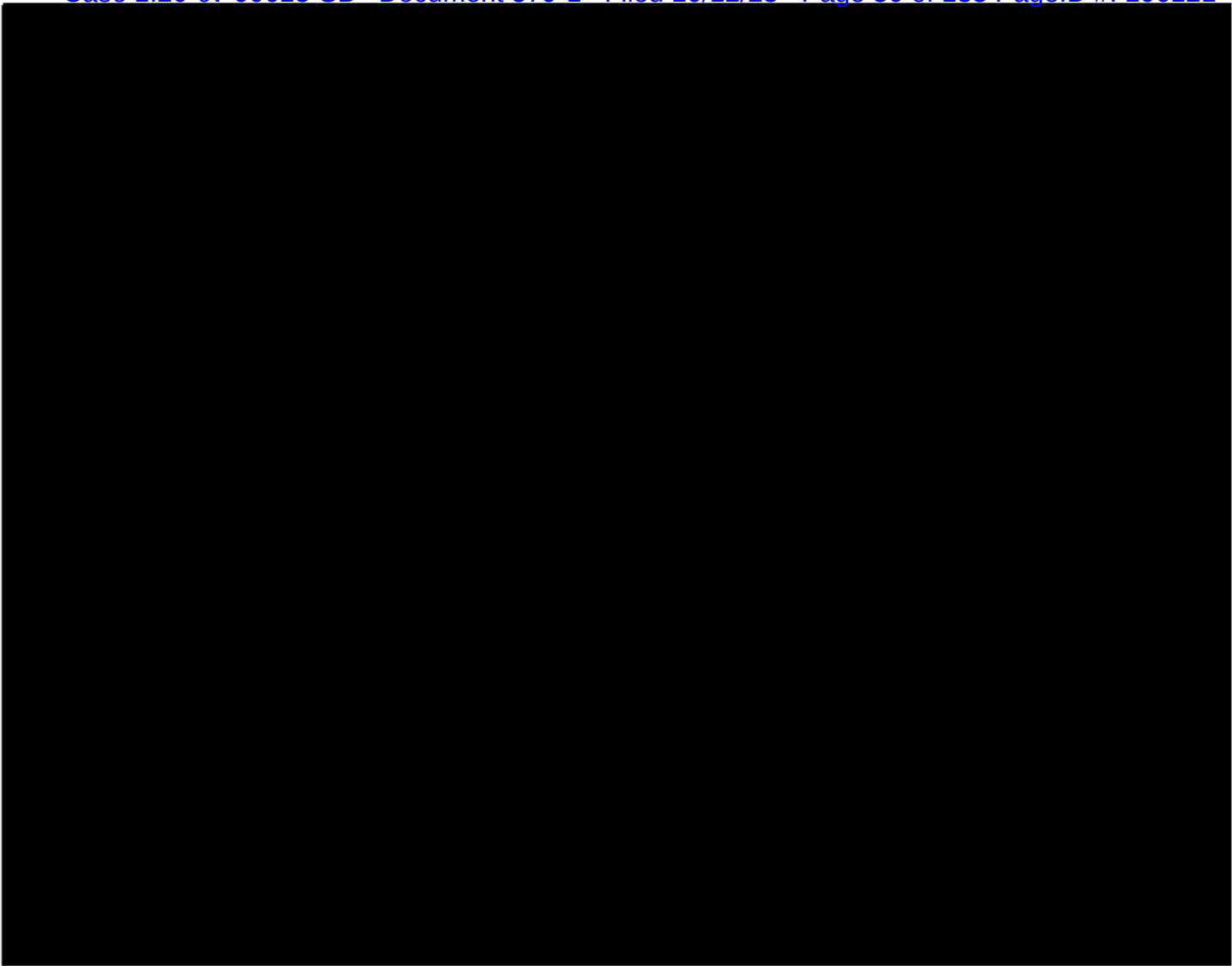
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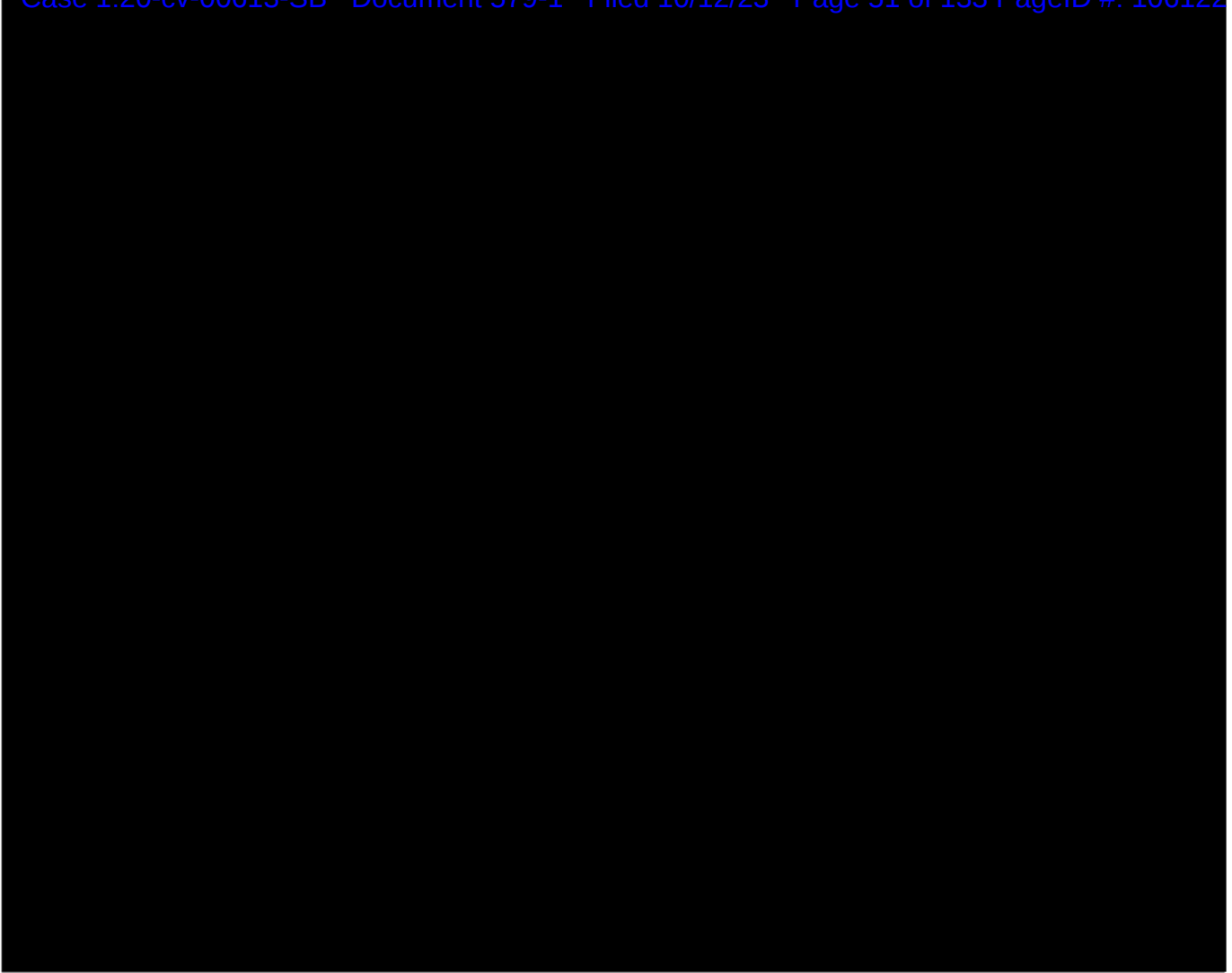
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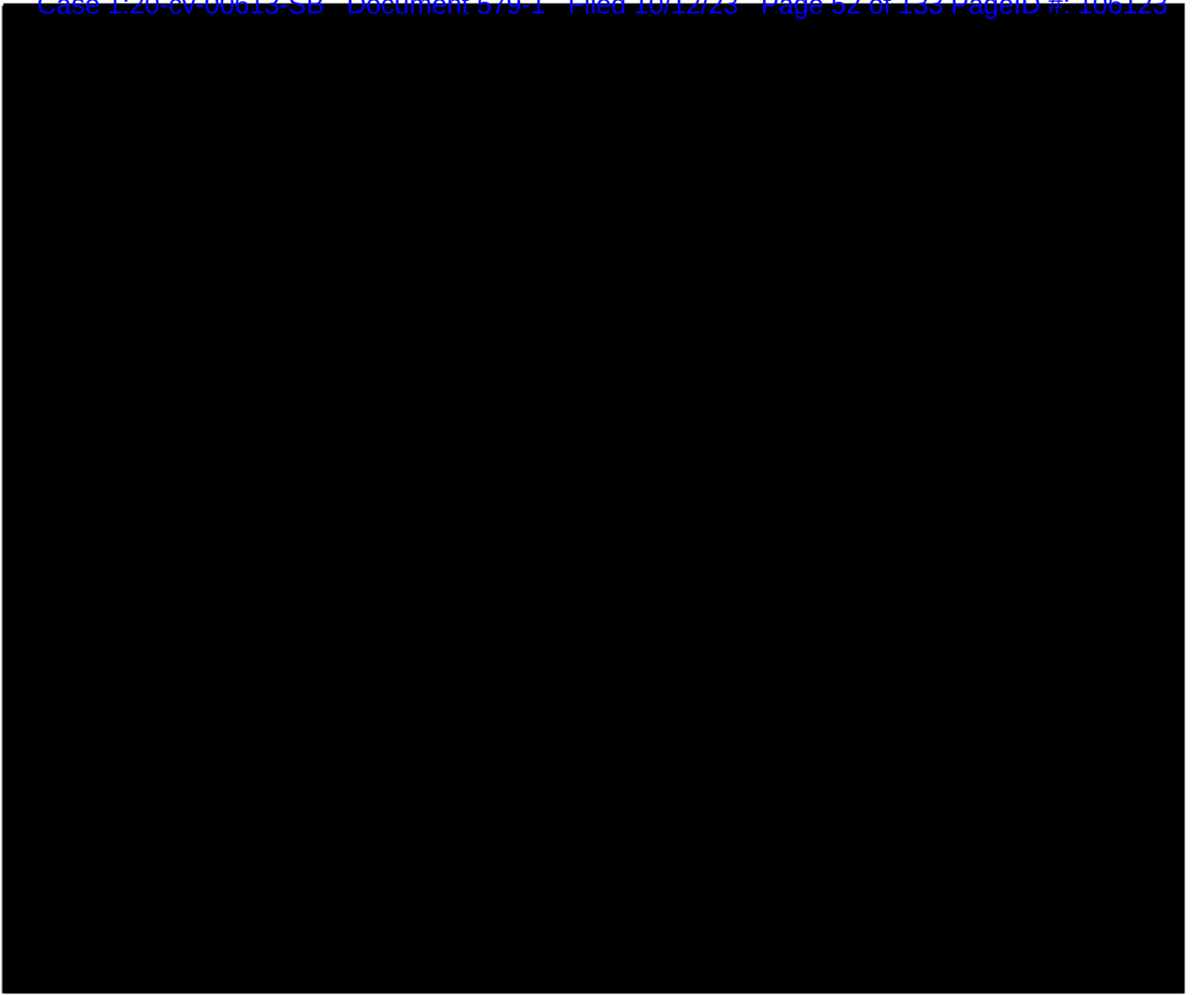


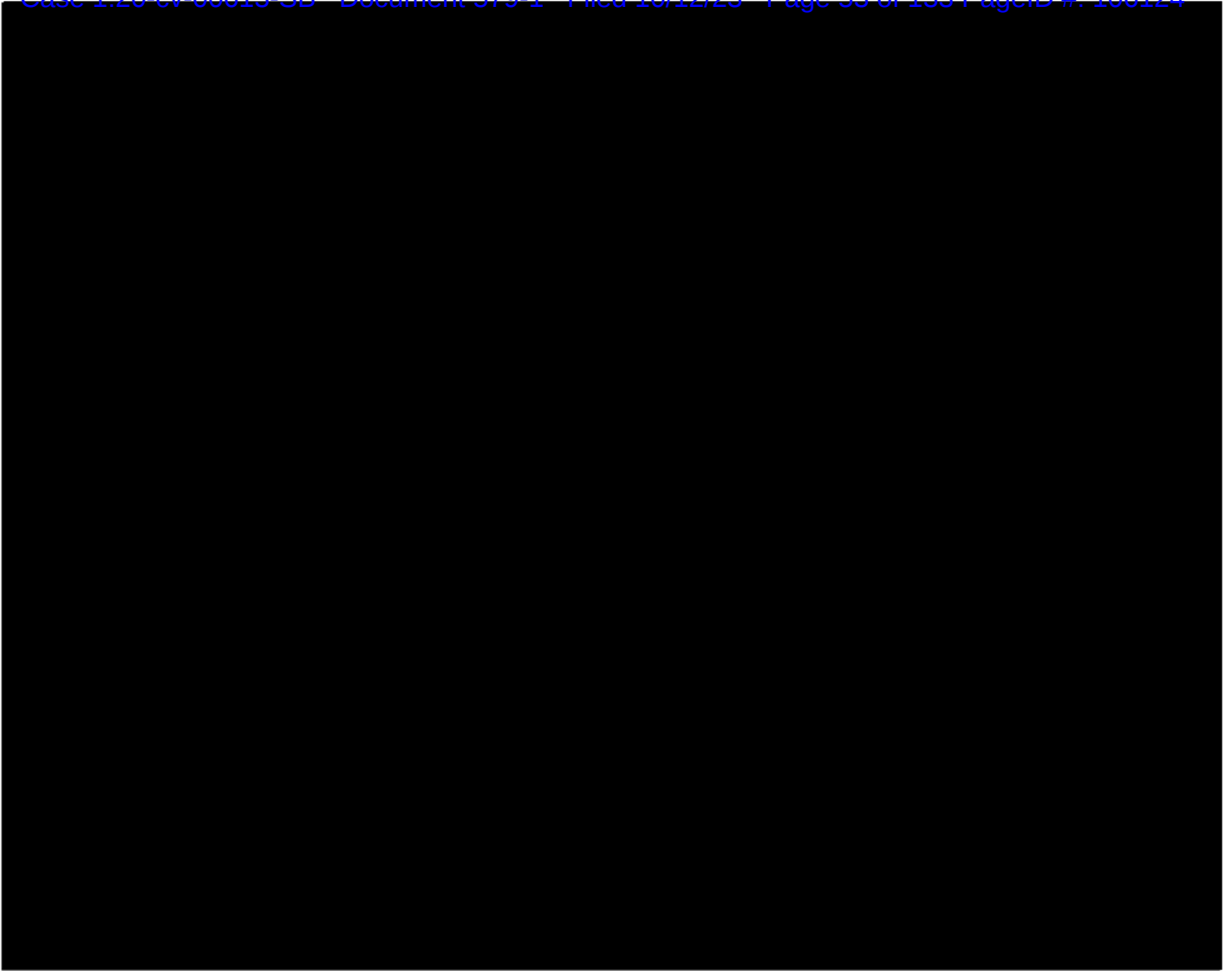


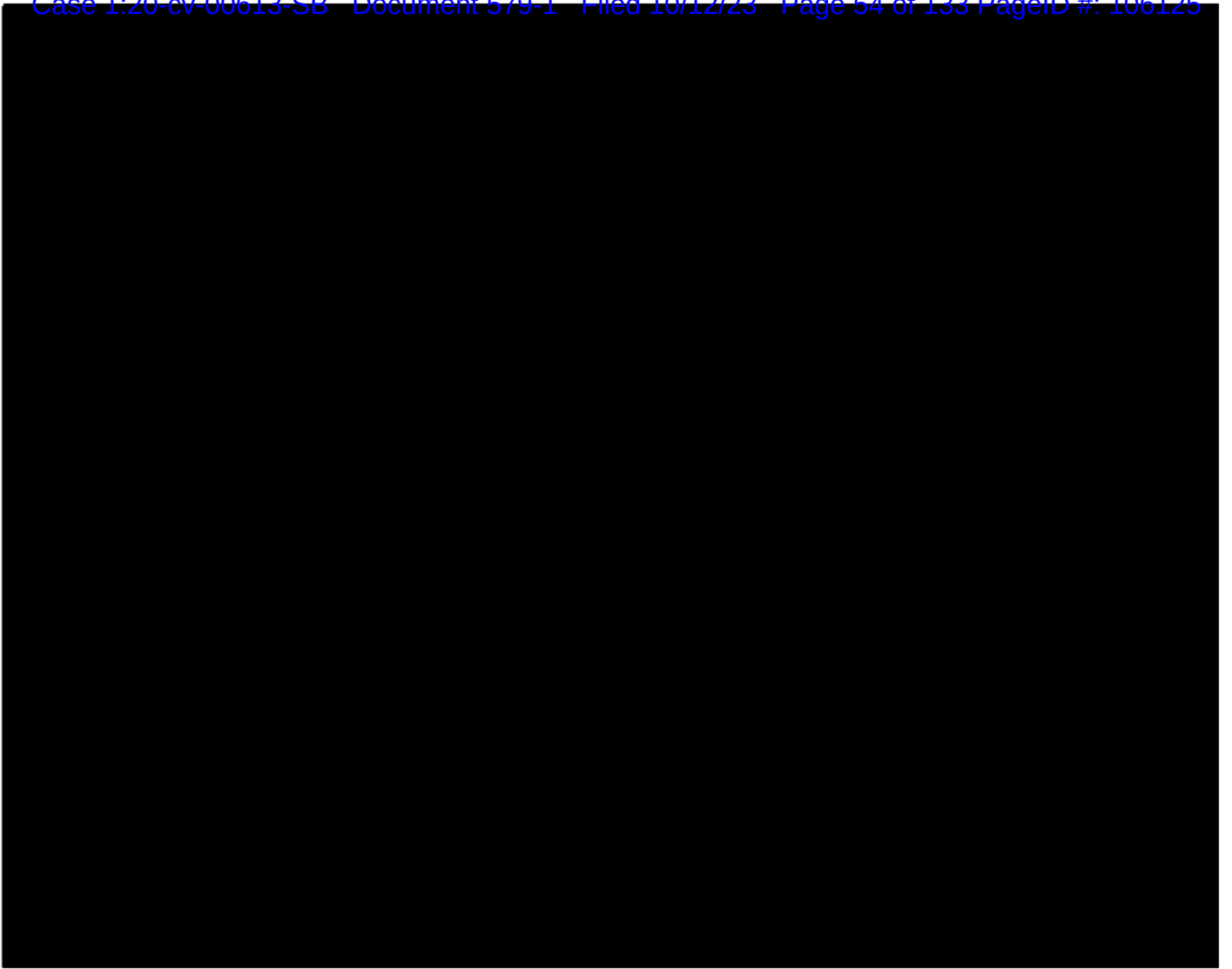












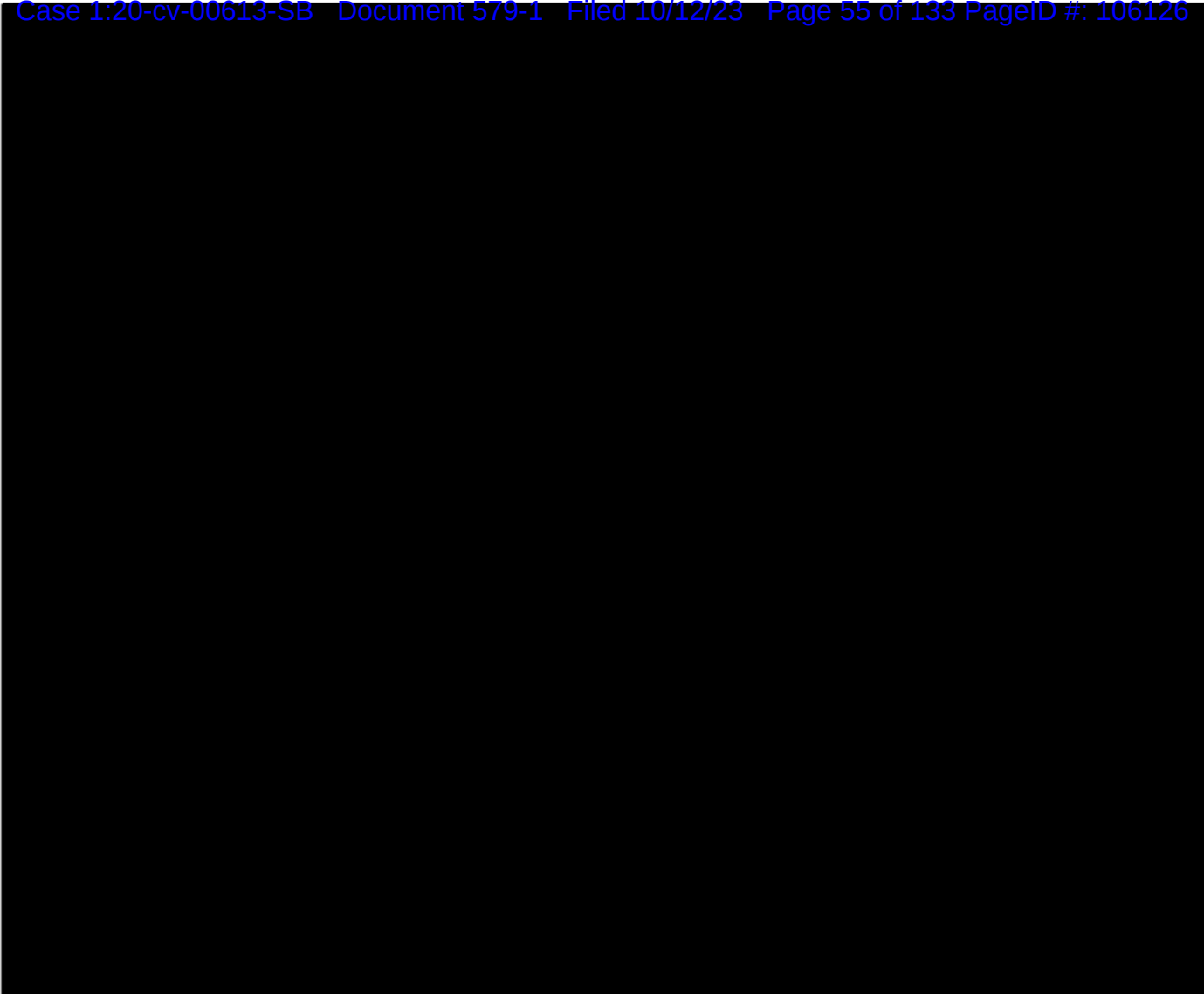
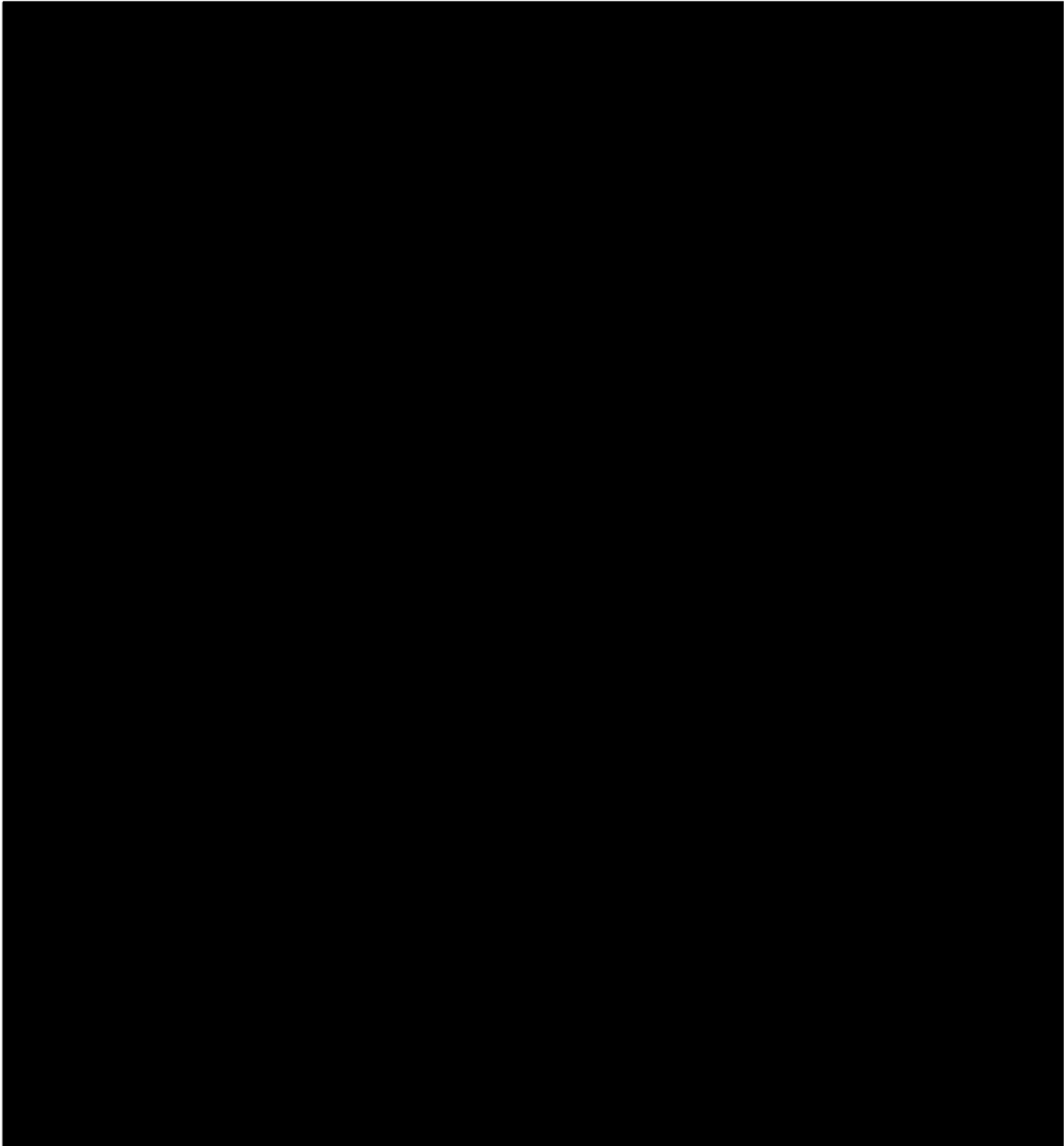




EXHIBIT I

Message

From:
on behalf of
Sent:
To:
CC:
Subject:



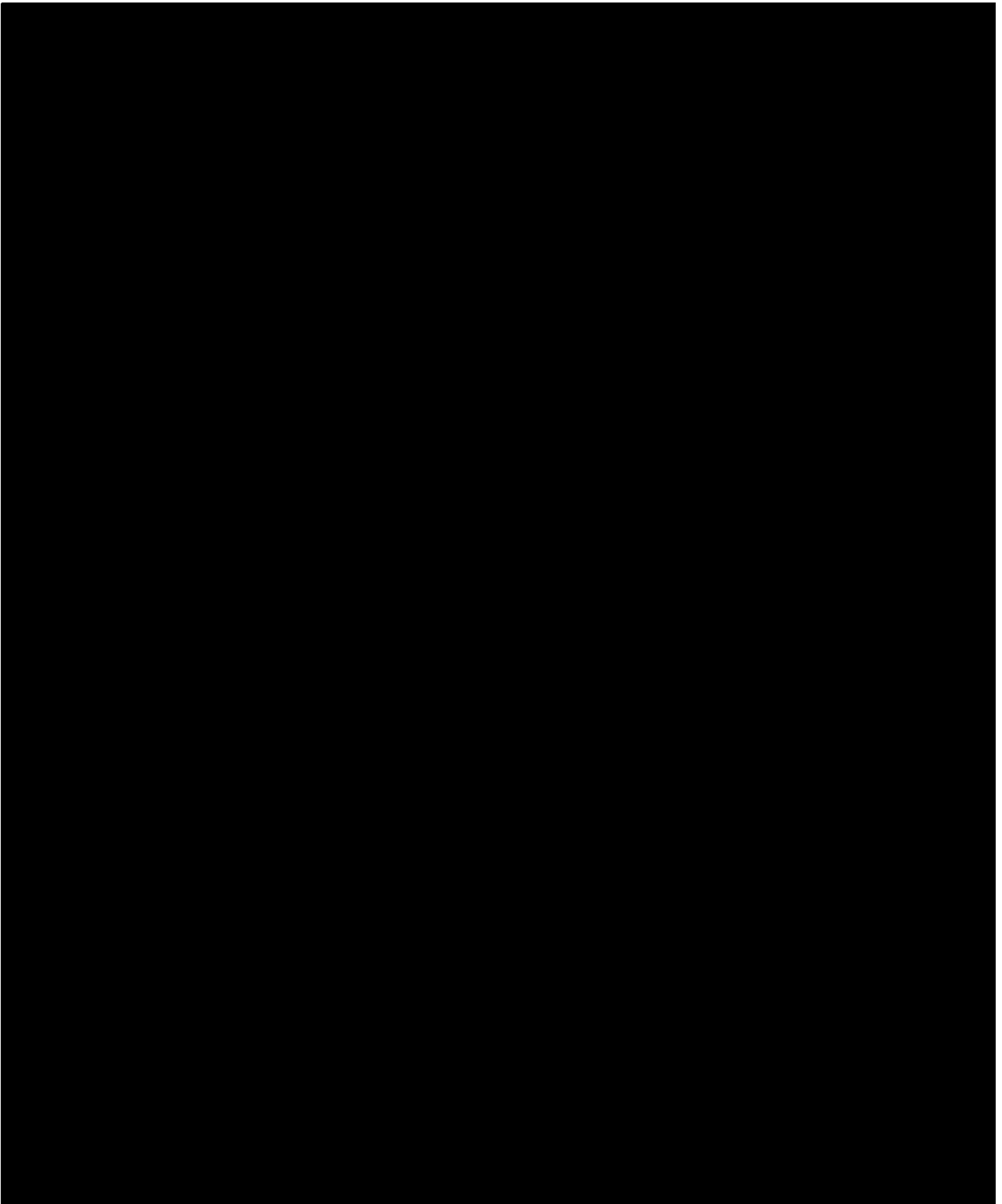


EXHIBIT J

Message

From:
on behalf of
Sent:
To:
Subject:
Attachments:

[REDACTED]

[REDACTED]

EXHIBIT K

EXHIBIT L

From: [REDACTED]
Sent: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Subject: [REDACTED]

[REDACTED]

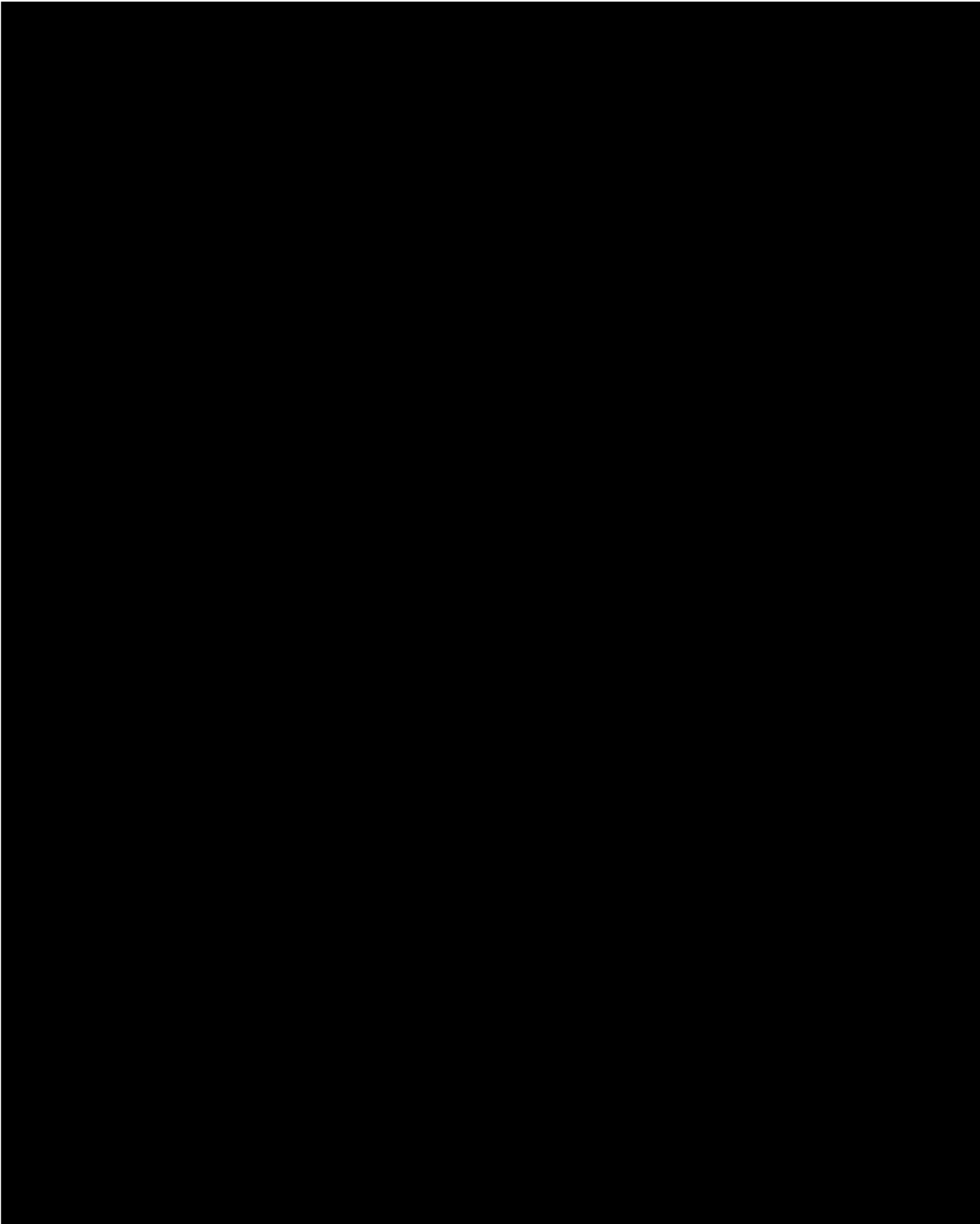




EXHIBIT M

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[REDACTED]

Sent:

[REDACTED]

To:

[REDACTED]

Subject:

[REDACTED]

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EXHIBIT N

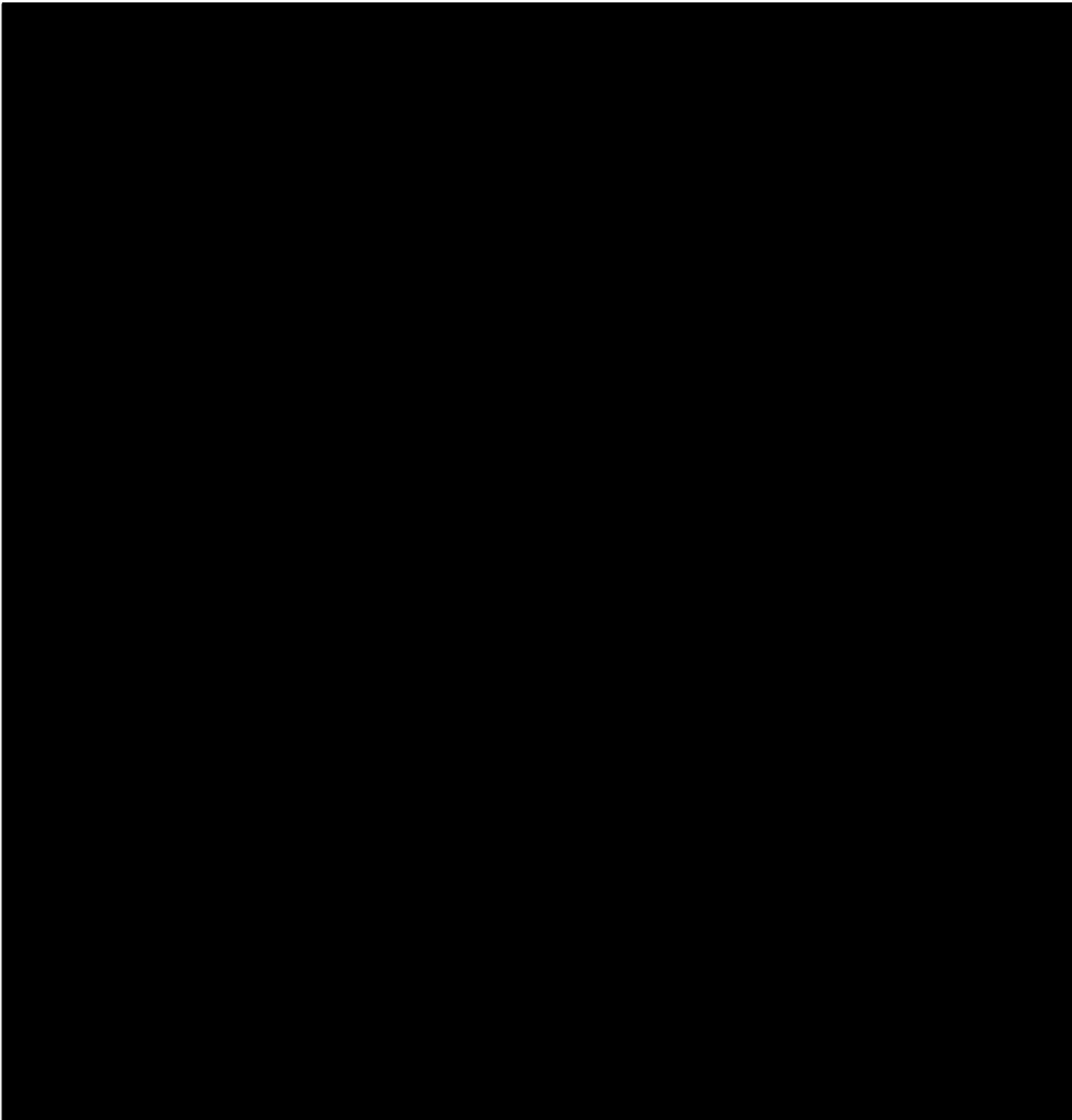
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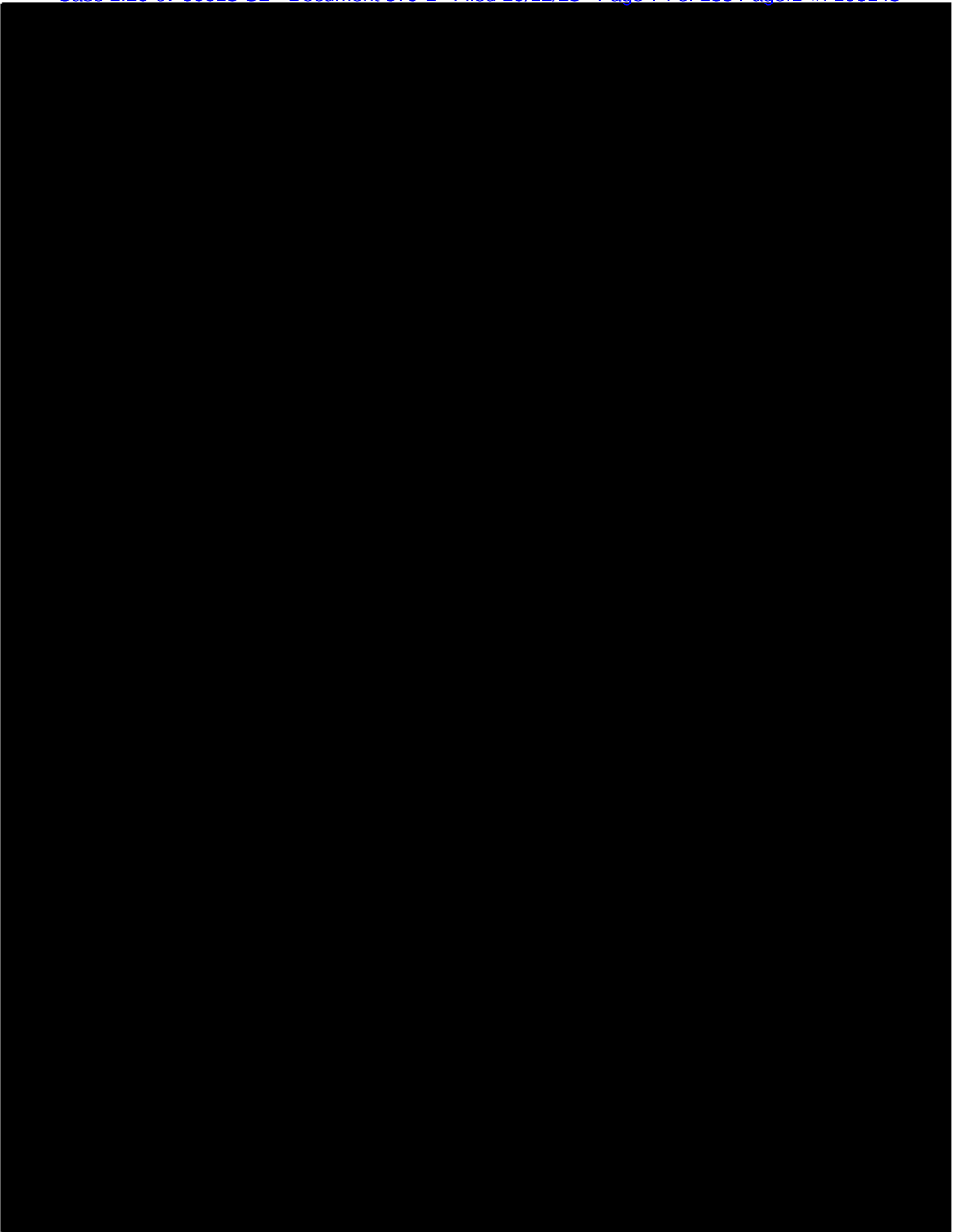
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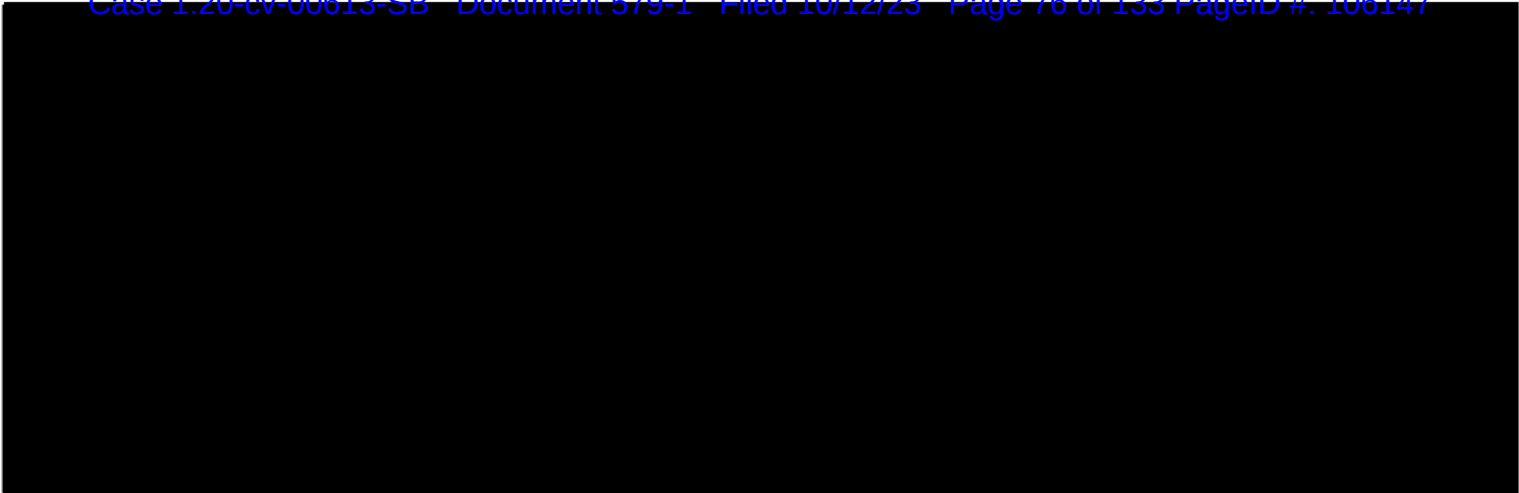


EXHIBIT O

**THIS EXHIBIT HAS BEEN
REDACTED IN ITS ENTIRETY**

EXHIBIT P

**THIS EXHIBIT HAS BEEN
REDACTED IN ITS ENTIRETY**

EXHIBIT Q

Message

From:
Sent:
To:
Subject:

[REDACTED]

[REDACTED]

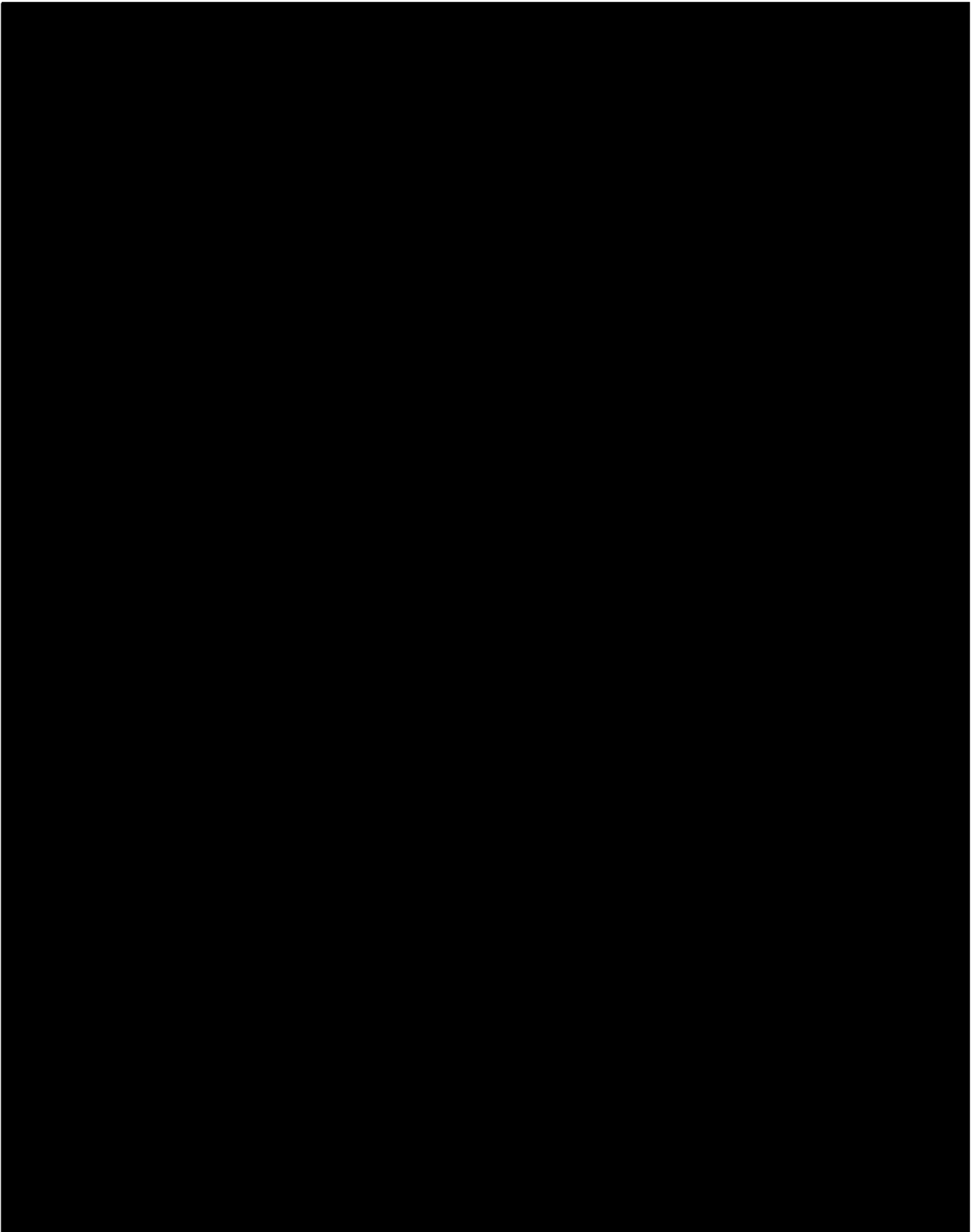


EXHIBIT R

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From:

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To:

CC:

Subject:

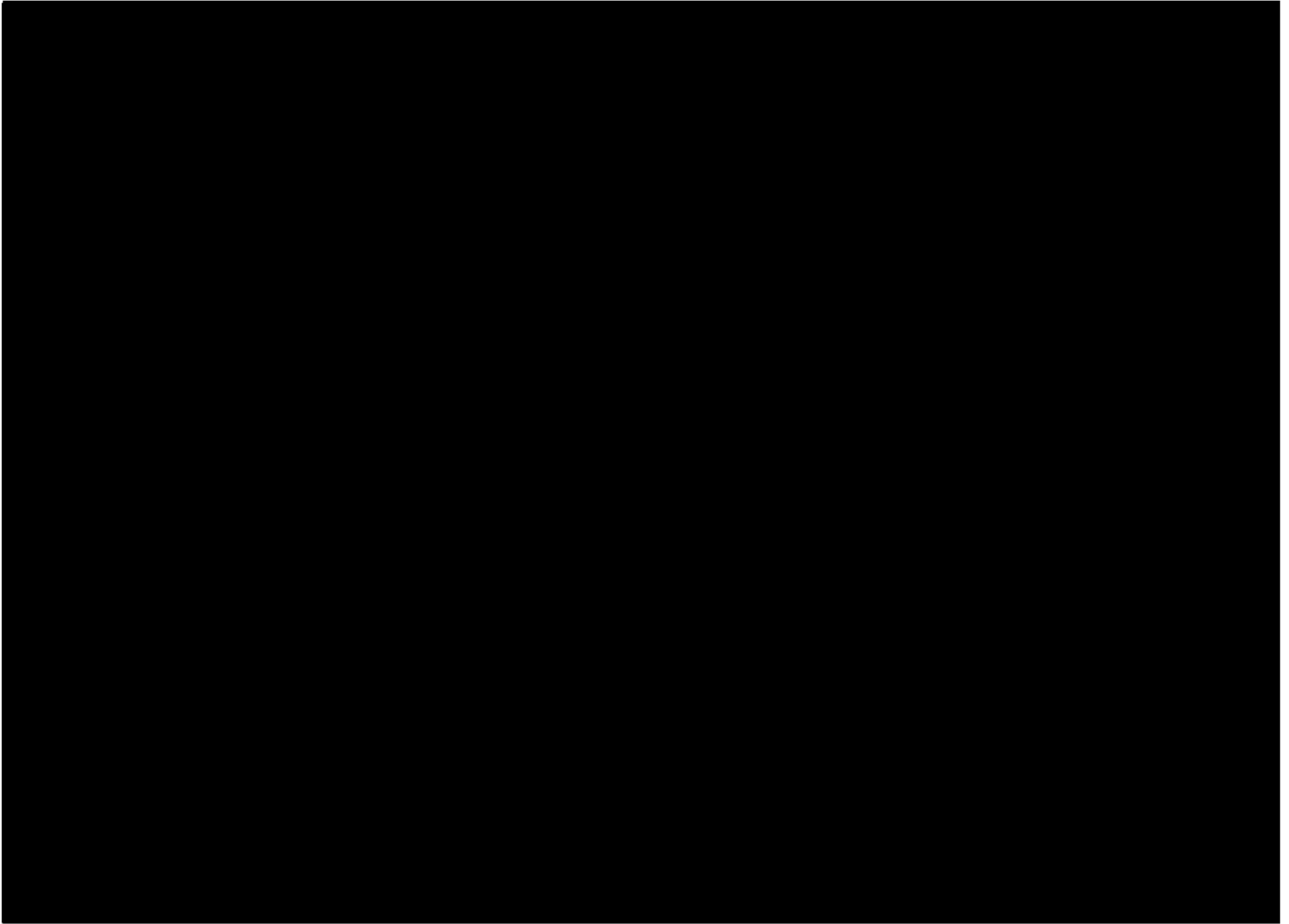


EXHIBIT S

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

THOMSON REUTERS ENTERPRISE)	
CENTRE GMBH and WEST PUBLISHING)	
CORPORATION,)	
)	C.A. No. 20-613-SB
Plaintiffs/Counterdefendants,)	
)	JURY TRIAL DEMANDED
v.)	
)	HIGHLY CONFIDENTIAL-
ROSS INTELLIGENCE INC.,)	ATTORNEYS' EYES ONLY
)	
Defendant/Counterclaimant.)	

**DEFENDANT AND COUNTERCLAIMANT ROSS INTELLIGENCE
INC.'S RESPONSE AND OBJECTION TO PLAINTIFFS'
FIFTH SET OF INTERROGATORIES**

Pursuant to Rules 26 and 33 of the Federal Rules of Civil Procedure and the Local Rules of Civil Practice and Procedure of the United States District Court for the District of Delaware (“the Local Rules”), Defendant/Counterclaimant ROSS Intelligence Inc. (“ROSS”) hereby responds to the Fourth Set of Interrogatories to ROSS served by Plaintiffs Thomson Reuters Enterprise Centre Gmbh and West Publishing Co. (collectively, “Plaintiffs”) on April 11, 2023.

These responses are made solely for the purpose of this litigation. Each response is subject to all objections as to competence, relevance, materiality, propriety, and admissibility, and to any and all other objections on any grounds that would require the exclusion of any statements contained herein if such interrogatories were asked of, or statements contained herein were made by, a witness present and testifying in court, and all such objections are expressly reserved and may be asserted at the time of trial.

ROSS’s responses are based upon information presently available to and located by ROSS. ROSS has not completed its investigation of the facts relating to this case, discovery in this action, or its preparation for trial. The responses given are intended to be without prejudice

to ROSS's ability to produce evidence of any additional facts. As such, these responses are subject to supplementation and amendment as discovery in this case progresses should future investigation indicate that supplementation or amendment is necessary.

No incidental or implied admissions are intended by these responses. The fact that ROSS has responded and/or objected to any interrogatory should not be taken as an indication that ROSS admits the existence of any facts set forth or assumed by such interrogatory. Likewise, that ROSS has responded to part or all of any interrogatory is not intended to be, and should not be construed as, a waiver by ROSS of any objection to any interrogatory.

GENERAL OBJECTIONS

ROSS incorporates each of the following General Objections into each and every specific Interrogatory response below. The assertion of the same, similar, or additional objections in response to specific Interrogatories does not waive, limit, or modify any of the General Objections to the Interrogatory.

1. ROSS reserves all rights to object to the use of any responses herein in any subsequent proceedings, including the trial of this or any action. To the extent ROSS responds to these Interrogatories, ROSS does not concede that the information requested is either relevant to any party's claim or defense or proportional to the needs of the case.

2. ROSS preserves all objections as to competency, relevancy, authenticity, materiality, and admissibility. ROSS expressly reserves the right to object to further discovery into any of these Interrogatories.

3. ROSS objects to Plaintiffs' Definitions, General Instructions, and Interrogatories to the extent that they improperly attempt to expand, alter, or modify the scope of permissible discovery under, or impose a duty or obligation that is inconsistent

with, in excess of, or not authorized by, the Federal Rules of Civil Procedure (“FRCP”), the District of Delaware Local Rules (the “Local Rules”), or any other applicable law (collectively, the “Applicable Law”).

4. ROSS objects to each Interrogatory to the extent it seeks information that is privileged attorney-client communications, attorney work product and/or confidential trade secrets, and to the extent that it seeks information otherwise protected from discovery under any applicable rule or privilege. Such documents or information shall not be produced in response to these Interrogatories, and any inadvertent production or disclosure thereof shall not be deemed a waiver of any of the aforementioned privileges, protections or rules.

5. ROSS objects to each Interrogatory to the extent it violates a third party’s right to privacy under the United States Constitution, the California Constitution, and other applicable state laws.

6. ROSS objects to each Interrogatory to the extent that it would require ROSS to search for or produce information that is not reasonably accessible because of undue burden or cost.

7. ROSS objects to each Interrogatory to the extent that it seeks information that ROSS is required by law not to disclose without a court order.

8. ROSS objects to each Interrogatory to the extent that it is overly broad, unduly burdensome, vague, ambiguous, redundant, harassing, or oppressive.

9. ROSS objects to each Interrogatory to the extent that it seeks information not currently in ROSS’s possession, custody, or control, or that it would subject ROSS to unreasonable or undue annoyance, oppression, burden, or expense.

10. ROSS objects to each Interrogatory to the extent that it seeks information already in Plaintiffs’ possession or control, that is publicly available, or that is available to

Plaintiffs with no more burden than would be imposed on ROSS to obtain and produce such information.

11. ROSS's discovery and investigation of the facts relevant to the claims and defenses in this action is ongoing. ROSS's responses are based upon information presently available to and located by ROSS and its attorneys and represent a good faith effort to ascertain responsive information to the extent such information is reasonably available. ROSS reserves the right to supplement or amend any responses as necessary and as additional responsive information is obtained through discovery or otherwise, and to submit any and all admissible evidence available at the time of trial.

12. The identification of a specific ground or grounds for objection to a particular Interrogatory is provided solely to clarify ROSS's position with respect to the particular Interrogatory and shall not be deemed a waiver of any of these General Objections.

13. ROSS objects to each Interrogatory as premature to the extent that it seeks disclosure of information in advance of the deadlines set by this Court, and/or to the extent that it seeks information that is dependent on the claims, defenses, and contentions, and theories raised by the parties throughout this litigation or during trial, as well as any information discovered throughout this litigation.

14. ROSS objects to the definition of "Customer" as vague and ambiguous and overbroad to the extent it seeks "any natural person, firm, law firm, corporation, partnership, group, association, organization, governmental entity, or business entity" and "all potential and actual Customers." ROSS defines "Customer" to mean any person or entity that ROSS was aware used the ROSS platform.

15. ROSS objects to each Interrogatory to the extent that it seeks premature expert discovery.

INTERROGATORY RESPONSES

Interrogatory No. 20:

Describe in detail the basis for ROSS's allegation that there is Customer demand for a (i) Public Law Database separate from any Legal Search Tools and (ii) Legal Search Tools separate from a Public Law Database.

ANSWER TO INTERROGATORY NO. 20:

ROSS objects to the definition of "Customer" as vague and ambiguous and overbroad to the extent it seeks "any natural person, firm, law firm, corporation, partnership, group, association, organization, governmental entity, or business entity" and "all potential and actual Customers." ROSS defines "Customer" to mean any person or entity that ROSS was aware used the ROSS platform. ROSS further objects because this Request seeks information protected from disclosure by the attorney-client privilege, work-product doctrine, or any other applicable privilege. ROSS further objects to this Request to the extent it calls for a legal conclusion as to the definition of separate customer demand for purposes of federal law. ROSS defines separate customer demand for purposes of this response as information reflecting a commercial interest in a Public Law Database or a Legal Search Tool as a product independent from a commercial or any other type of interest in another product. ROSS further objects to this Interrogatory as calling for premature expert discovery. ROSS will provide its expert reports and analyses at the time set by the Court. ROSS further objects to this Interrogatory as vague, ambiguous, overly broad, unduly burdensome, and calling for the production of information neither relevant nor proportional to the needs of the case, to the extent it seeks to require ROSS to marshal all of its

evidence and proof, which is both improper and premature under the Federal Rules of Civil procedure and the Scheduling Order (D.I. 41).

Subject to the above Objections, ROSS's allegation [REDACTED]

[REDACTED]

[REDACTED].

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]

Interrogatory No. 21:

Identify all Customers that licensed, inquired about licensing, or that ROSS approached about licensing (i) ROSS's Legal Search Tools separate from any Public Law Database or (ii) ROSS's Public Law Database separate from ROSS's Legal Search Tools and, for each Customer, Specify whether category (i) or (ii) (or both) of this Interrogatory applies.

ANSWER TO INTERROGATORY NO. 21:

ROSS objects to the definition of "Customer" as vague and ambiguous and overbroad to the extent it seeks "any natural person, firm, law firm, corporation, partnership, group, association, organization, governmental entity, or business entity" and "all potential and actual Customers." ROSS defines "Customer" to mean any person or entity that ROSS was aware used the ROSS platform. ROSS further objects to this Interrogatory because it is overly broad and unduly burdensome, to the extent it seeks to require ROSS to identify "all Customers."

Subject to the above objections, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

A horizontal bar chart consisting of 20 solid black bars. The bars are arranged vertically, with their lengths varying significantly. The longest bar is the 10th bar from the top, extending almost to the right edge of the image. The bars above and below it are also quite long. The bars at the very top and bottom are the shortest, while the bars in the middle are generally longer, creating a bell-shaped distribution of lengths.

[REDACTED]

[REDACTED]

[REDACTED]

Interrogatory No. 22:

Identify every contract that included the restriction on the use of ROSS's licensed product "to develop any derivate works other than court documents and any other official documents on behalf of a specific represented party, any functionally compatible or competitive software, or directory or databased prepared for commercial use," see ROSS-003450648, or included the restriction on the access to ROSS's licensed product "if you are a direct competitor of the Company ... or for any other competitive purposes," see ROSS-003428044, or any similar licensing restrictions, and explain whether you contend this license restriction violates the antitrust laws. If not, explain how ROSS's conduct is different than Plaintiffs' in this respect.

ANSWER TO INTERROGATORY NO. 22:

ROSS objects to this Interrogatory because it is overly broad and unduly burdensome, to the extent it seeks to require ROSS to identify "every contract included the restriction on the use of ROSS's licensed product "to develop any derivate works other than court documents and any other official documents on behalf of a specific represented party, any functionally compatible or competitive software, or directory or databased prepared for commercial use," see ROSS-003450648, or included the restriction on the access to ROSS's licensed product "if you are a direct competitor of the Company ... or for any other competitive purposes," see ROSS-003428044, or any similar licensing restrictions, and explain whether you contend this license restriction violates the antitrust laws." ROSS has produced its subscription license agreements, such as ROSS-003450648, and Plaintiffs are equally positioned to assess those agreements for the language Plaintiffs seek. ROSS further objects to the terms "contract," "restriction," "use," "licensed," "product," "access," "licensing," "violate," and "conduct" as undefined, vague, and ambiguous. ROSS further objects to this Interrogatory as calling for premature expert discovery. ROSS will provide its expert reports and analyses at the time set by the Court. ROSS further

objects to this Interrogatory to the extent it calls for a legal conclusion and asks ROSS to state whether certain terms in its subscription license agreements violate antitrust laws.

Subject to the above objections, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Interrogatory No. 23:

Identify all Customers that “voiced concerns that a substitute database might not be sufficiently comprehensive” and describe in detail the “concerns” that Customers expressed to ROSS about the breadth of ROSS’s Public Law Database, including as compared to Westlaw’s Public Law Database, as alleged in Paragraph 73 of the Second Amended Complaint.

ANSWER TO INTERROGATORY NO. 23:

ROSS objects to the definition of “Customer” as vague and ambiguous and overbroad to the extent it seeks “any natural person, firm, law firm, corporation, partnership, group, association, organization, governmental entity, or business entity” and “all potential and actual Customers.” ROSS defines “Customer” to mean any person or entity that ROSS was aware used the ROSS platform. ROSS further objects to this Interrogatory because it is overly broad and unduly burdensome, to the extent it seeks to require ROSS to identify “all Customers.” ROSS also objects to this Request because it is compound and requires ROSS to (1) all Customers that “voiced concerns that a substitute database might not be sufficiently comprehensive” and (2) describe in detail the “concerns” that Customers expressed to ROSS about the breadth of ROSS’s Public Law Database. ROSS further objects because this Request seeks information protected

from disclosure by the attorney-client privilege, work-product doctrine, or any other applicable privilege.

Subject to the above objections, [REDACTED]

[REDACTED]

[REDACTED]

I [REDACTED]

[REDACTED]

I [REDACTED]

[REDACTED]

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I [REDACTED]

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Interrogatory No. 24:

Describe in detail all products that ROSS offered, planned to offer, and considered offering, including but not limited to any Legal Search Platform, Public Law Database, or Legal Search Tools.

ANSWER TO INTERROGATORY NO. 24:

ROSS objects to this Interrogatory because it is over board and seeks information not relevant to either party's claims or defenses or proportional to the needs of the case. ROSS further objects to the terms "products" as undefined, vague, and ambiguous.

Subject to the above objections, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Interrogatory No. 25:

For each of the following entities, Describe whether you sought to license a Public Law Database and, if not, Describe why not: Plaintiffs, Lexis, Casetext, Casemaker, Fastcase, vLex, Bloomberg, Wolters Kluwer, or any other Competitor as ROSS has defined that term (see, e.g., ROSS's First Set of Counterclaim Requests for Production).

ANSWER TO INTERROGATORY NO. 25:

ROSS objects to the term "license" as undefined, vague and ambiguous. Subject to the above objection, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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Dated: May 11, 2023
10807328 / 20516.00001

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CERTIFICATE OF SERVICE

I, David E. Moore, hereby certify that on May 11, 2023, true and correct copies of the within document were served on the following counsel of record at the addresses and in the manner indicated:

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/s/ David E. Moore

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EXHIBIT T

**THIS EXHIBIT HAS BEEN
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EXHIBIT U

**THIS EXHIBIT HAS BEEN
REDACTED IN ITS ENTIRETY**

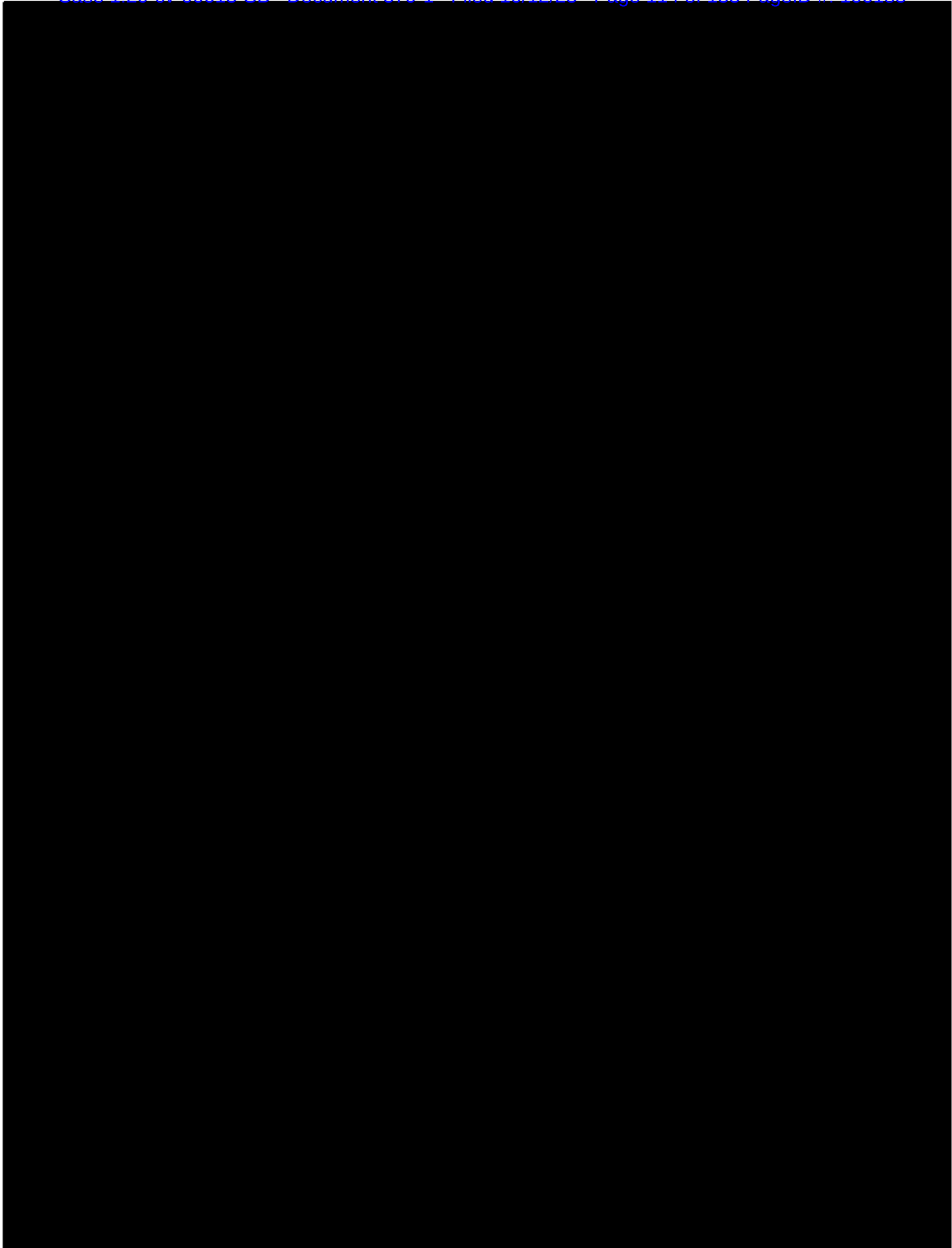
EXHIBIT V

**THIS EXHIBIT HAS BEEN
REDACTED IN ITS ENTIRETY**

EXHIBIT W

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REDACTED IN ITS ENTIRETY**

EXHIBIT X



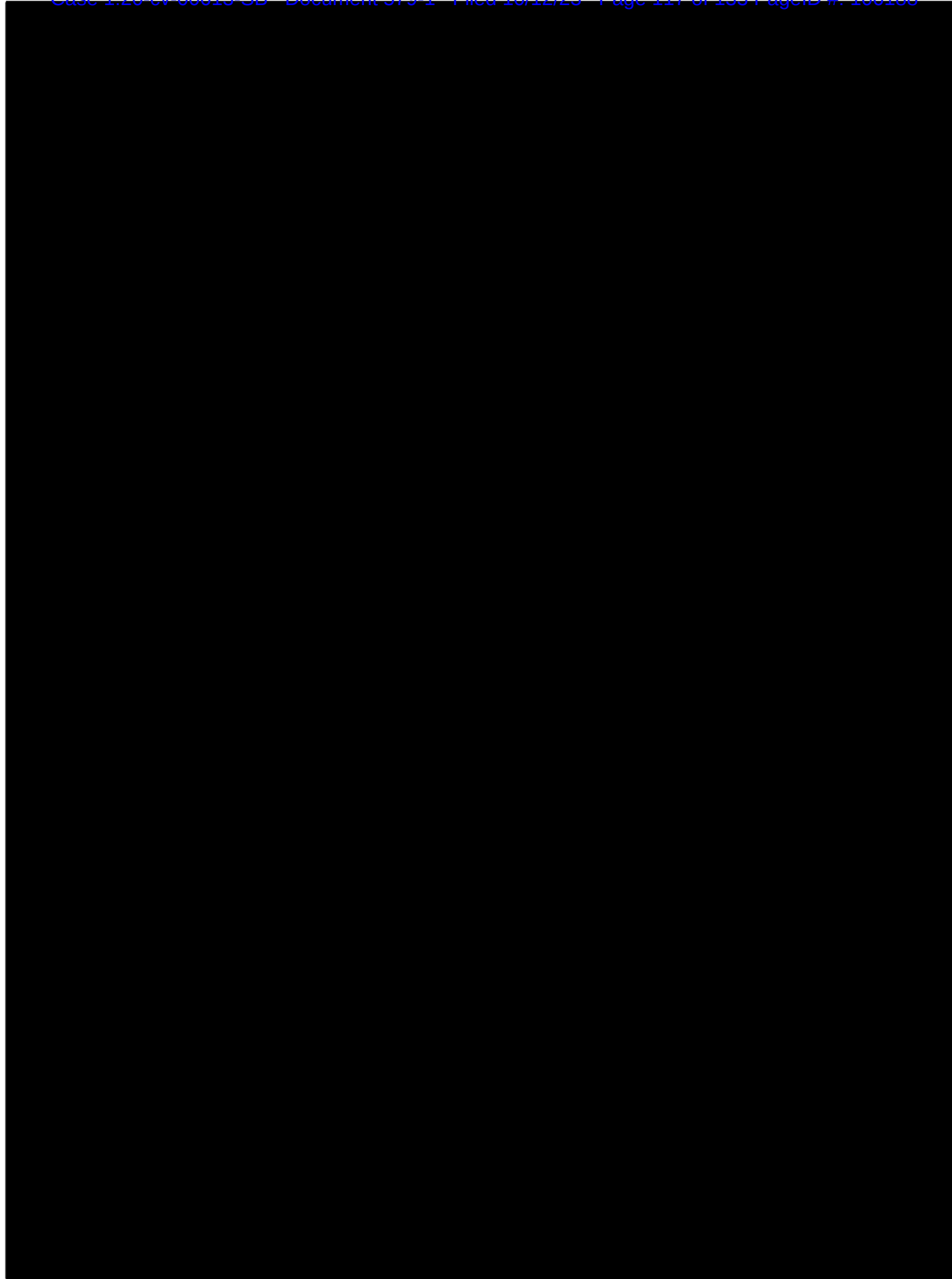
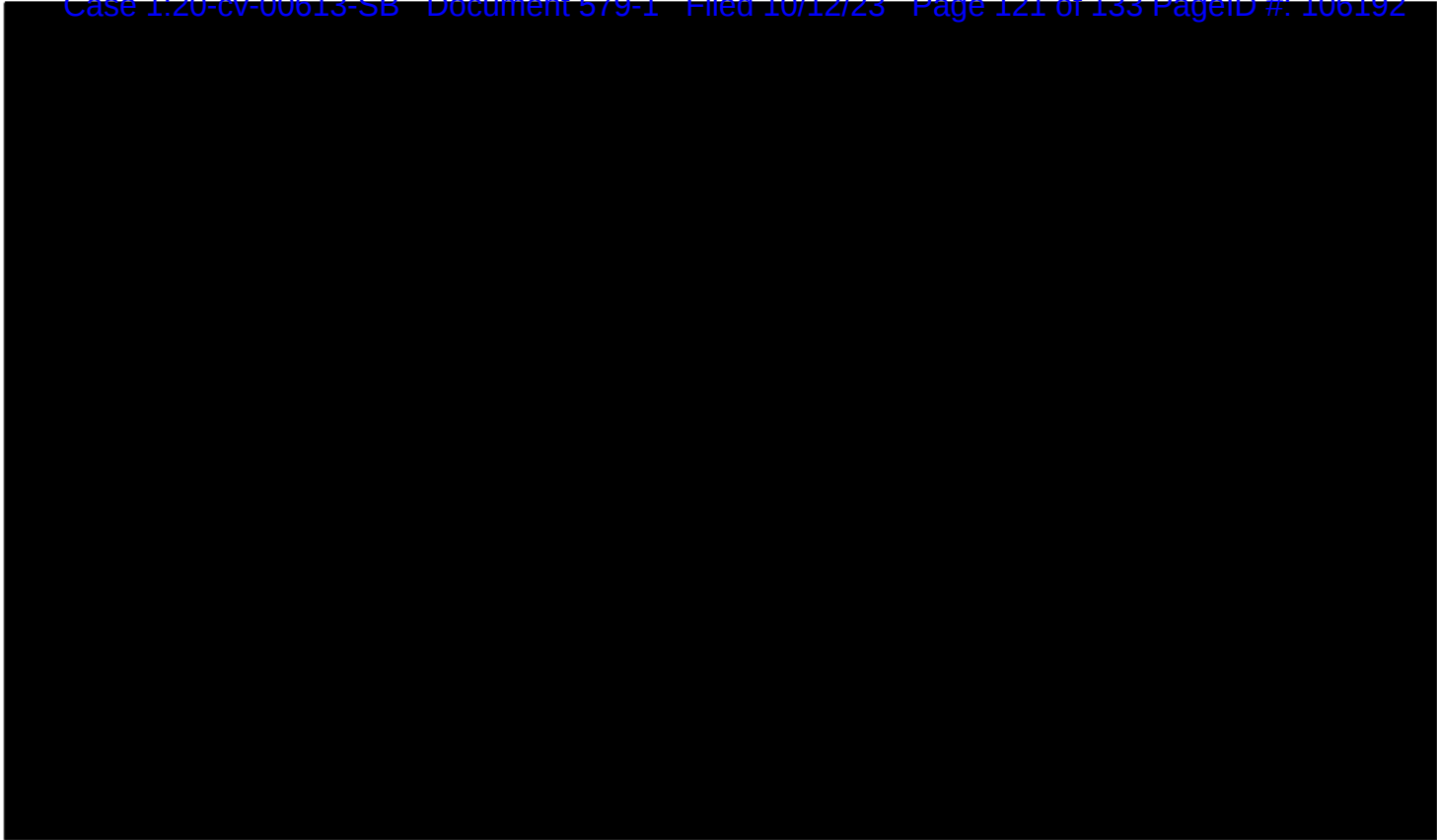
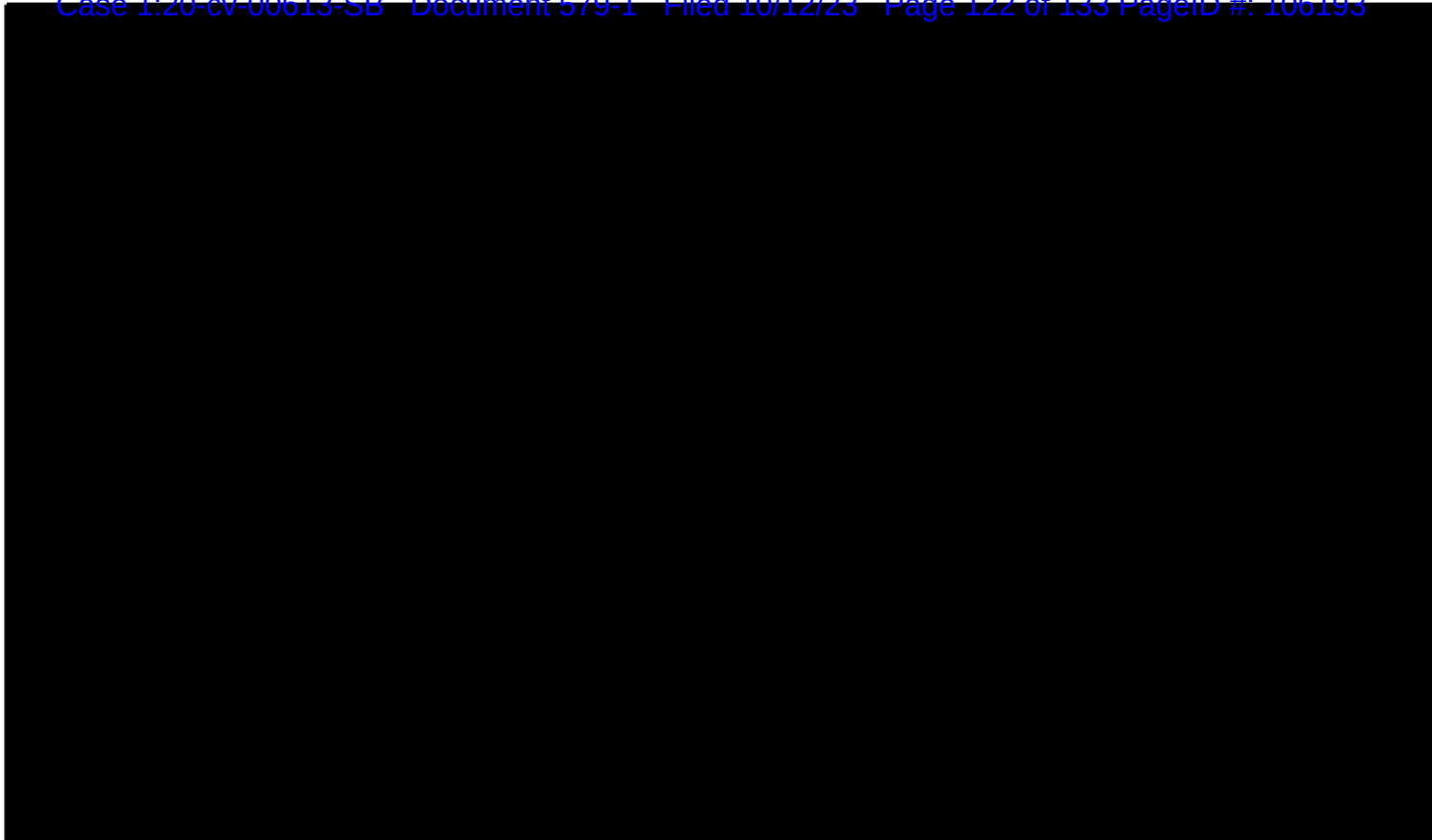
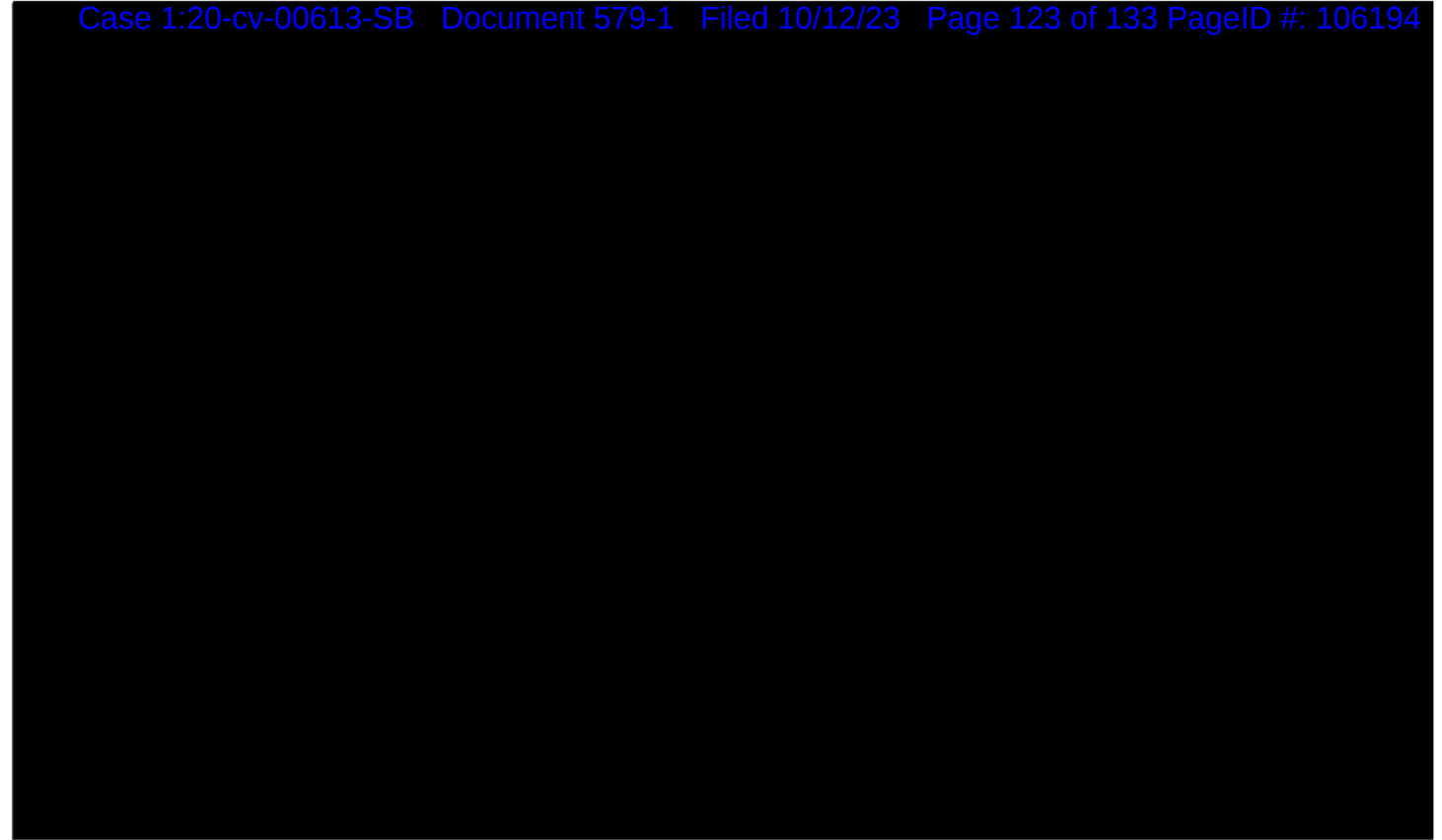
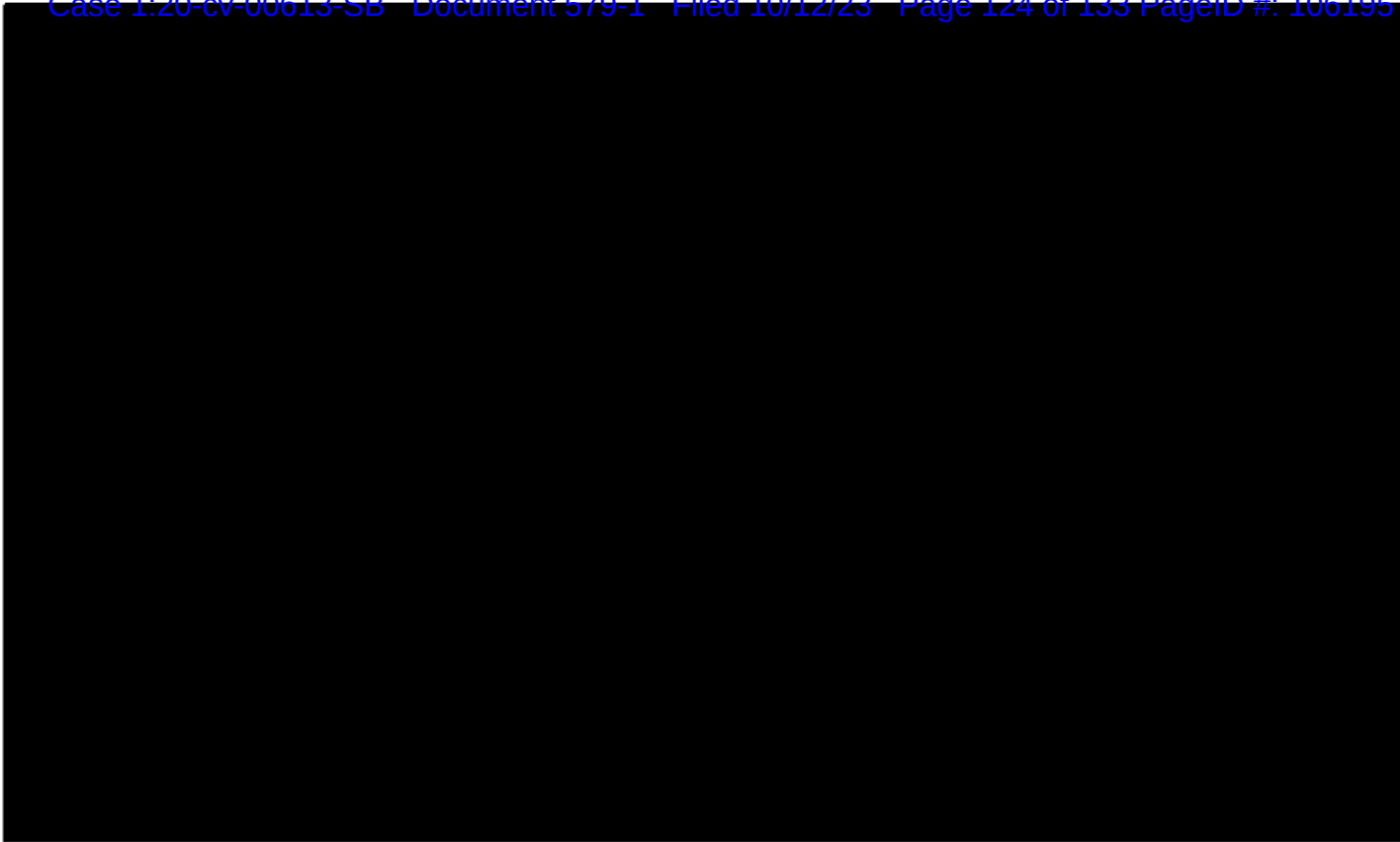


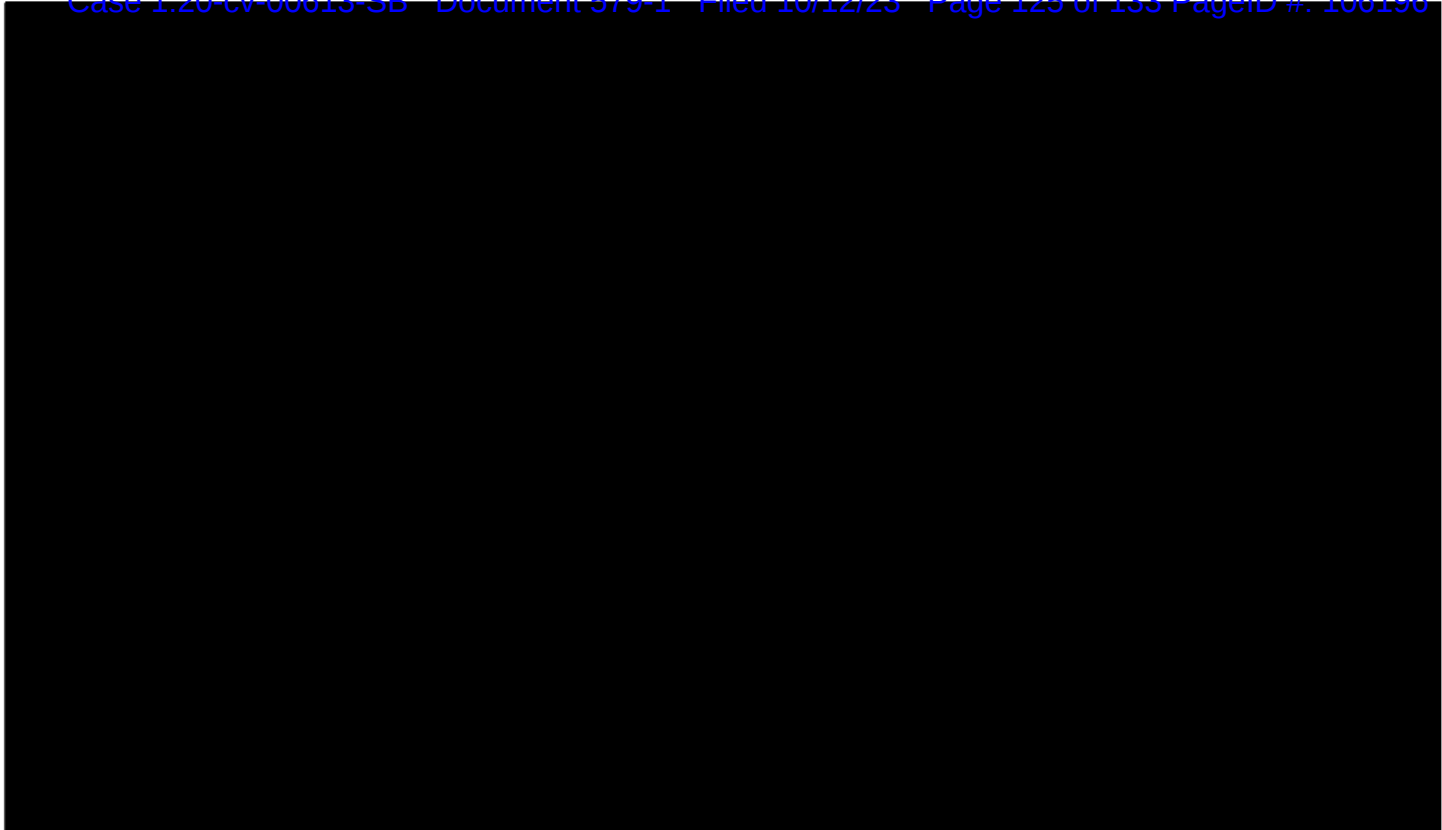
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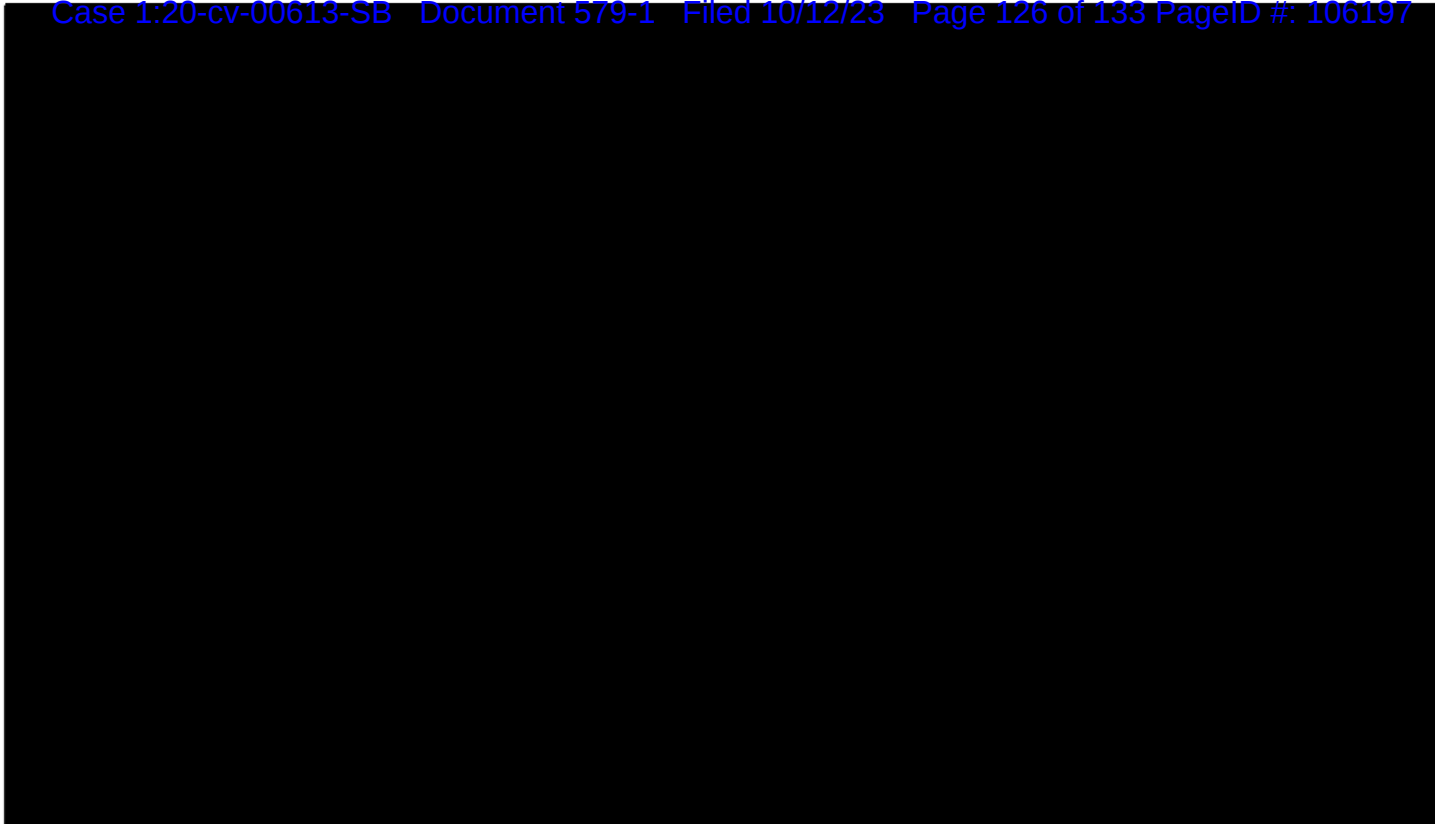


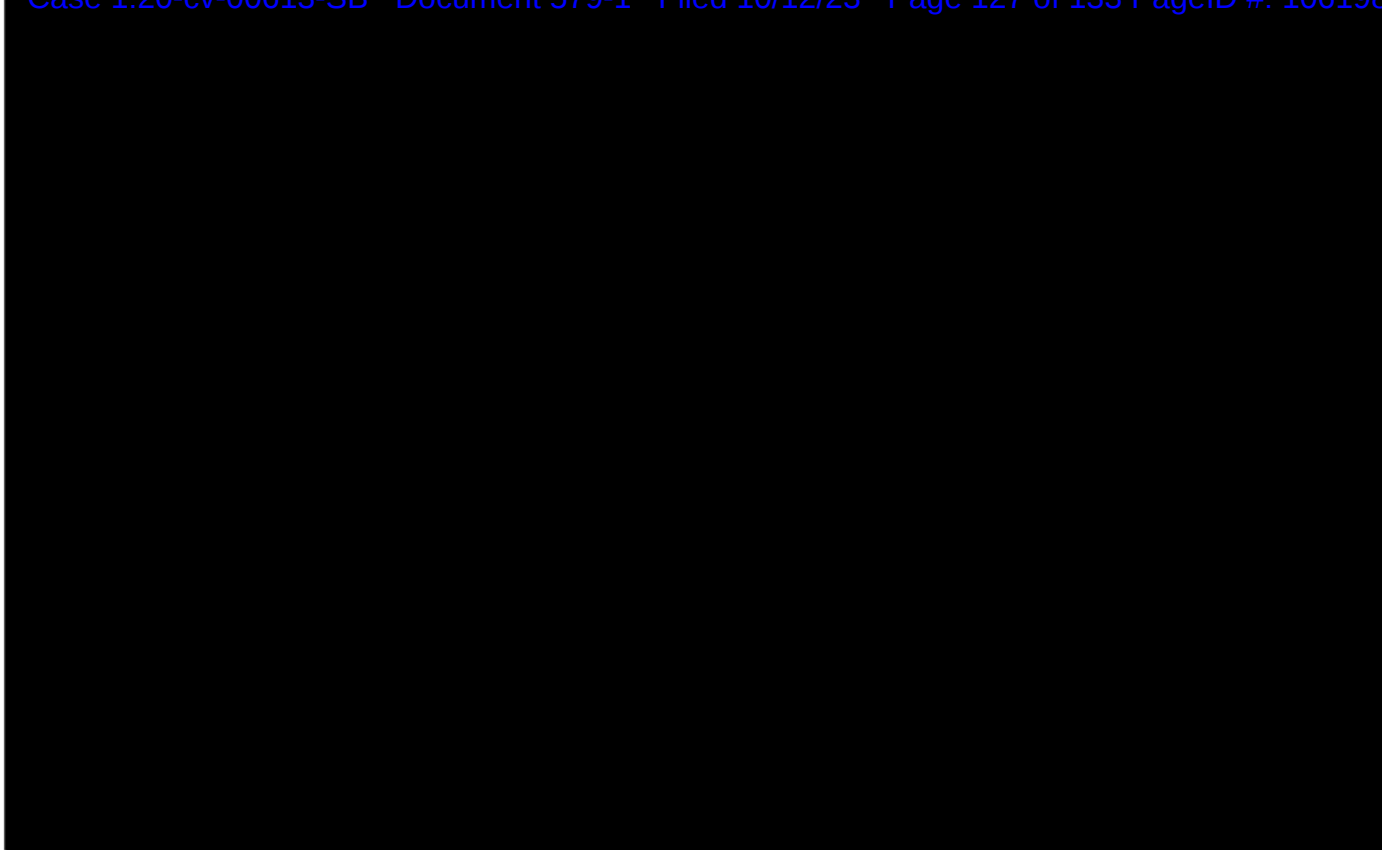


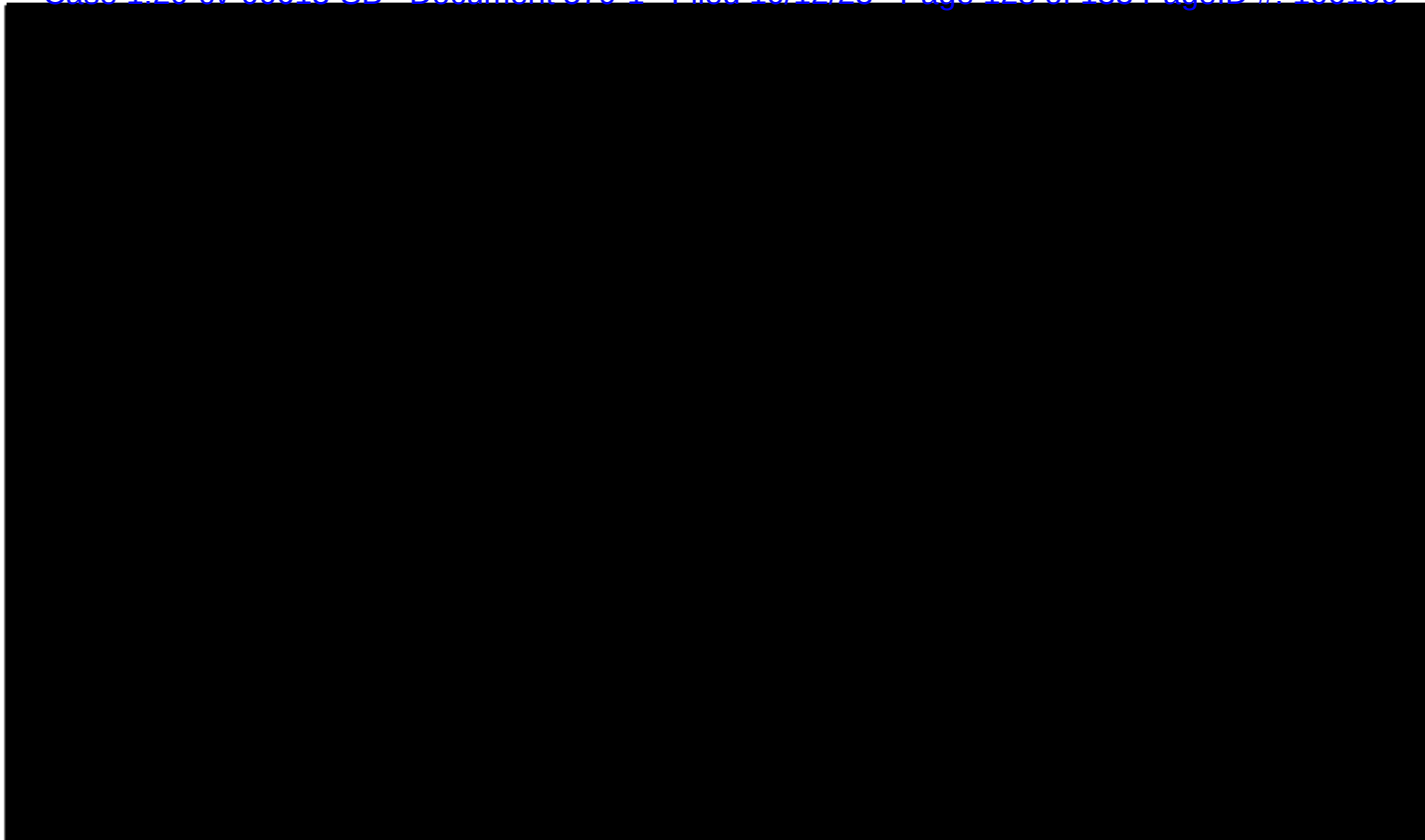


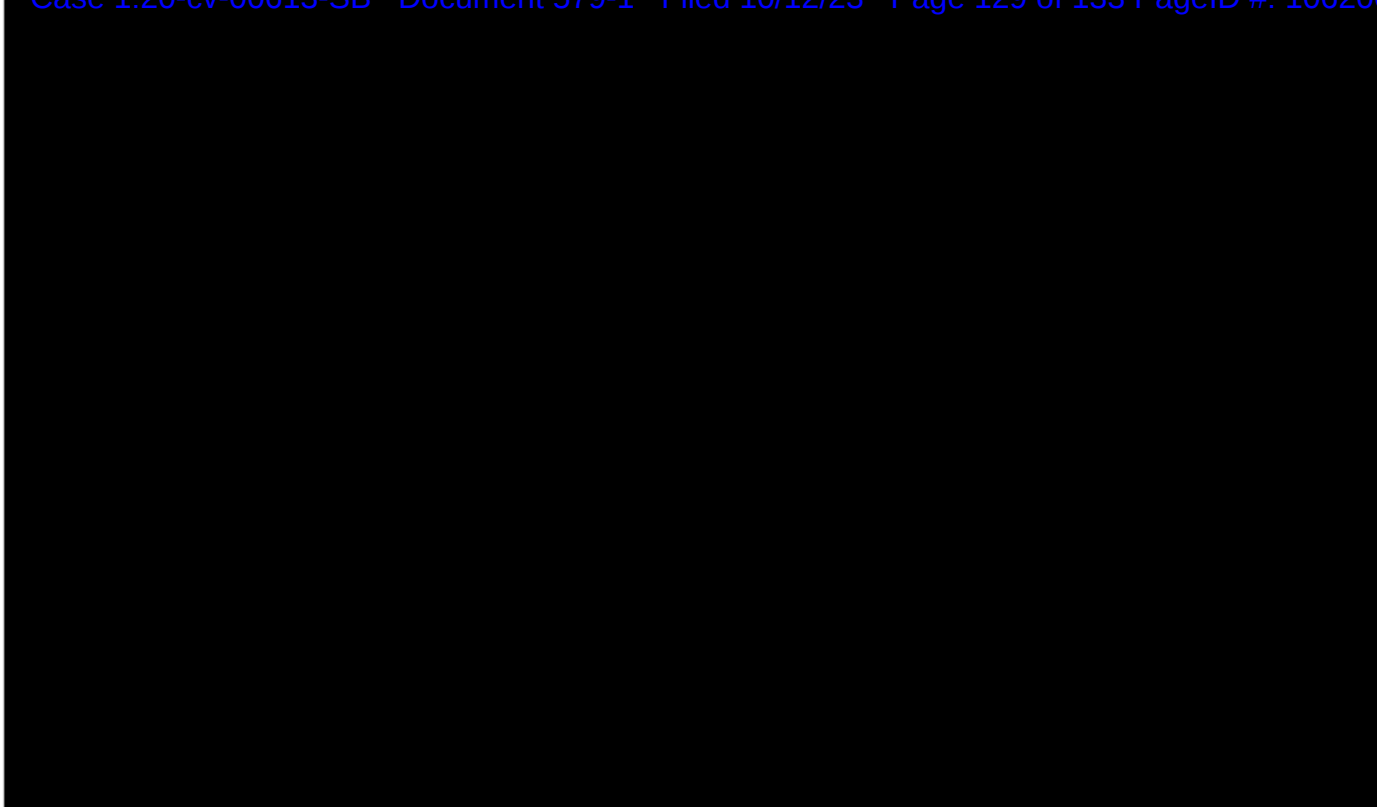


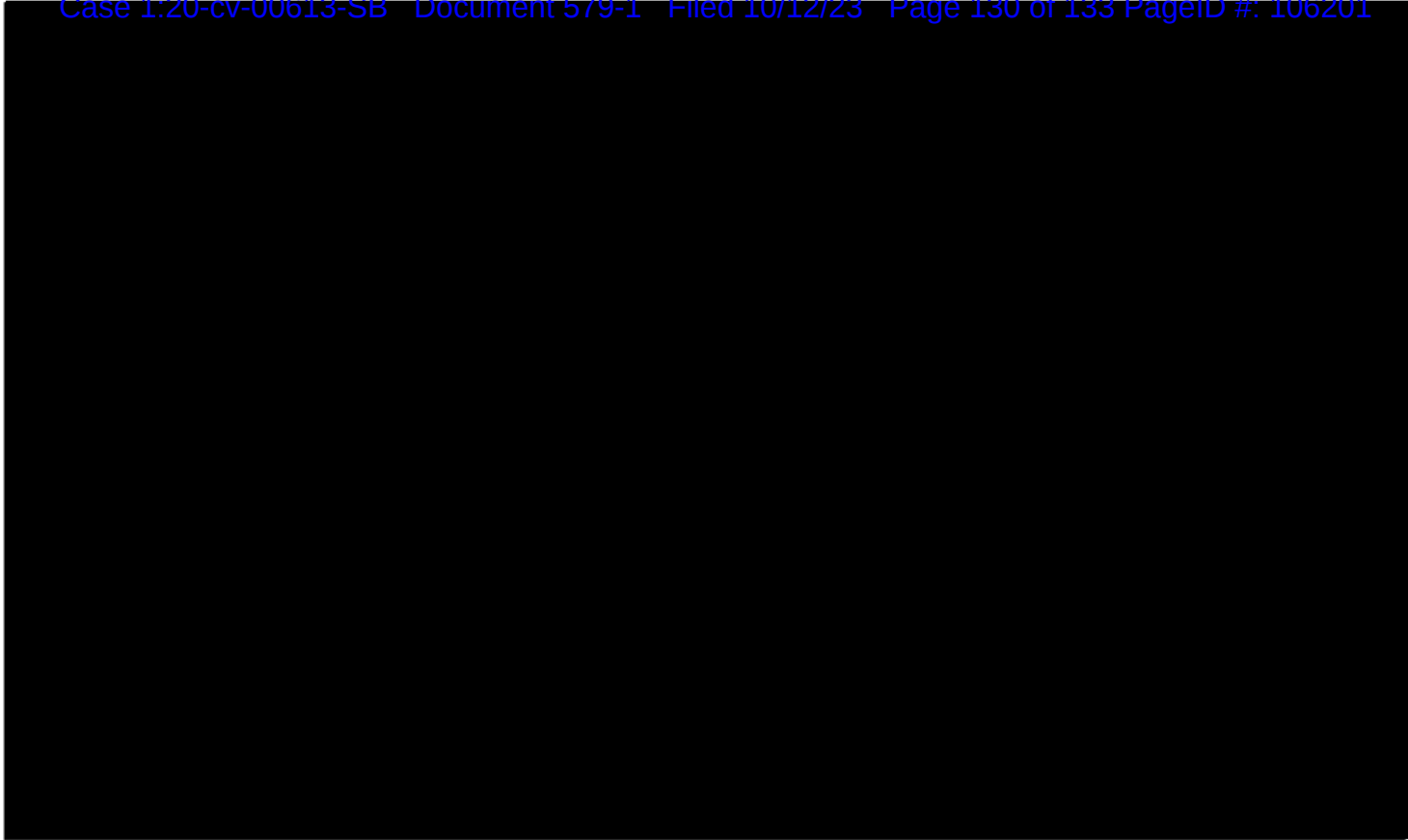












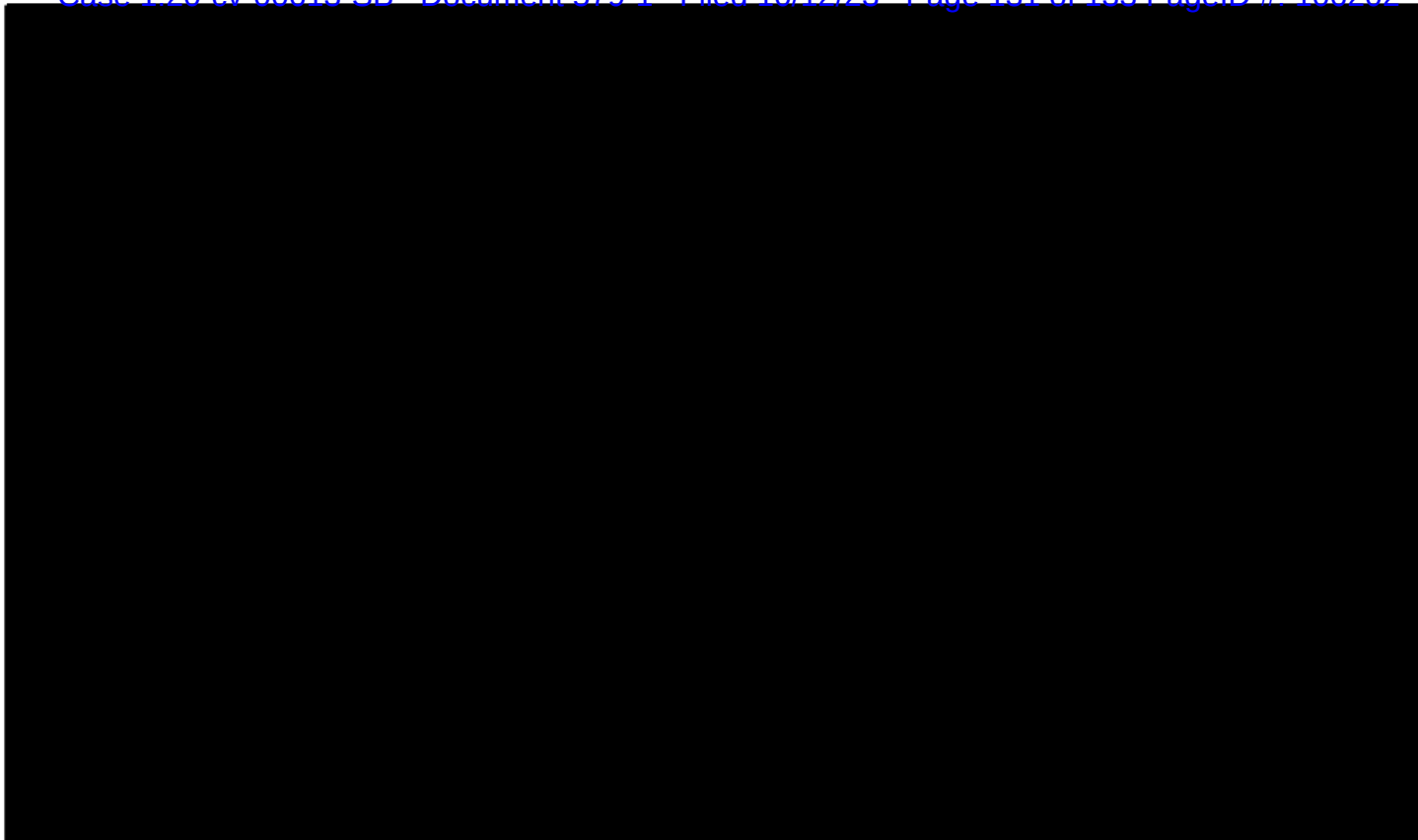


EXHIBIT Z

**THIS EXHIBIT HAS BEEN
REDACTED IN ITS ENTIRETY**